MASTERS PROJECT

AN ANALYSIS OF POLLUTION PREVENTION EFFORTS

FOR SHIPS HOMEPORTED AT

NORFOLK NAVAL BASE, NORFOLK VIRGINIA

by

Cynthia J. Manning



19951115 012

for CE698

Dr. Mujde Erten-Unal



18 July 1995

DETE GELANDET DIBELITED S

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.



. • -

CONTENTS

1.	Introduction	1
2.	Case study	11
3.	Regulations	32
4.	Organization & Training	35
5.	Technologies	37
6.	Conclusions	48

Acce	eston Vor	
NTIS	CEA&I.	121
DTIC		
Unan	navaesä	
Juss		
Bý lá Dasa	<u>an an a</u>	ter en anter a ser en
Aster		S. 185
il. H	a ser a com	

LIST OF TABLES & FIGURES

T. 0-4

	following ng 3
1. Chart I- Underway periods	ionowing pg 5
2. Chart 2- Year 2000 P2 strategy	following pg 5
3. Table "Appendix II"- CHRIMP list	following pg 6
4. Table 1- GENSPECS	
5. Table 2- P2 Assessment	
6. Table 3- Ship layout	13
7. Figure 1- Ship pollution areas	following pg 13
8. Table 4- HM Storage	
9. Table 5- Cleaning locker listing	following pg 15
10. Figure 2- HM storage pictures	following pg 16
11. Figure 3- Paint storagepictures	following pg 16
12. Table 6- Material balance	following pg 18
13. Chart 3- Solid waste generation (weight)	following pg 27
14. Chart 4- Solid waste generation (volume)	following pg 27
15. Figure 4- Plastics storage pictures	following pg 28
16. Table 7- Appendix B3-C	following pg 34
17. Table 8- Discharge restrictions	following pg 34
18. Figure 5- Ship integrated P2 concept	following pg 47

INTRODUCTION

The environmental arena has grown dramatically over the last two decades; implementing thousands of new regulations in the attempt to improve the environmental condition of the earth. These regulations dealt with water, air, and ground contamination and were pointed at the industrial and commercial communities to clean up past pollution. Until the last decade, federal facilities were considered off limits to regulators due partially to the mission of upholding National Security, and therefore the management of waste was not monitored as close. With the passing of the 1984 RCRA Amendments, the "shore" portion of all federal facilities have come into compliance with federal, state, and local regulatory requirements. Because of the uniqueness of forces afloat, though, regulators did not know how to approach waste management on board ships and therefore they were exempt from several regulations.

In recent years though, the forces afloat's time has come as well. The Navy understands its responsibility to protect the environment, but the constantly changing regulations has posed a threat to the forces afloat's maneuverability; the Navy must be able to operate its ships anywhere in the world without environmental constraints. It is this need to sustain mission capabilities with the new regulations taking hold that has forced the Navy to take a more aggressive approach to managing their wastes from ships and complying with environmental regulations. In 1985, the Chief of Naval Operations (CNO) mandated a 50% reduction in hazardous waste (HW) production by the year 1992 in response to the 1984 RCRA Amendments, and the shore establishments began to realize that a large amount of their HW generated came from the forces afloat. For the shore facilities to reach 50% reduction, some action had to be taken with respect

to ships' waste management. Some ships did implement pollution prevention (P2) programs on their own, because it saved money, and it was the right thing to do. Ships such as the USS Theodore Roosevelt (CVN 71) and USS Kitty Hawk (CV-63) were pioneers in P2 for ships. Additional concern for ships came with the P2 Policies and Procedures of August 1993; mandating federal facility compliance with the Pollution Prevention Act of 1990. This was cited in Executive Order (EO) 12856, and established a new environmental management hierarchy as national policy, and it is incorporated in EO 12856, as follows:

- * Pollution should be prevented or reduced at the source whenever possible;
- * Pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible;
- * Pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and,
- * Disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

One requirement that stands out is the 50% reduction of the quantity of toxic chemicals being released by 31 December 1999.

Ship waste management covers more than just HM, though, and unfortunately almost all waste streams are going to be affected by present and upcoming regulations. The Act to Prevent Pollution from Ships (APPS) implements Annex I of MARPOL which prohibits oil and oily waste discharge in "special areas" (see Regulations section for further information). Annex I special areas include the Mediterranean Sea, Baltic Sea, Black Sea, and Antarctic Area. Ships must hold their waste in these areas unless it impairs operational effectiveness. APPS also

implements MARPOL Annex V which established a plastics discharge prohibition of 01 Jan 1999, and for special area limitations by 01 Jan 2001. This also carries a prohibition of nonfood solid waste discharge in special areas (in effect) by the year 2000. Currently, Annex V areas "in effect" includes the Baltic Sea, North Sea, and the Antarctic Region (south of 60 degrees south latitude). The number and broad coverage of these environmental regulations as well as several others issued have shown the Navy that they can not just respond to individual environmental problems as they arise, but must devise a complete comprehensive P2 program for the forces afloat to ensure compliance with all applicable regulations. For now and beyond the year 2000.

In developing a P2 program for forces afloat, it is a must to have an overall understanding of what the program encompasses and what baseline is the program starting from. As of 19 Jun 1995, the Navy has 374 ships. These ships range from large ships of up to approximately 100, 000 tons and carrying up to over 5,000 personnel such as Carriers to smaller ships under 4,000 tons and carrying only 200 personnel such as Frigates. Of these ships, 176 (47%) are underway, 101 (27%) are deployed, and 50 (13%) are in special areas. Not only is almost 50% of the ships underway, but the underway periods are increasing and will continue to increase especially for deployments. This is important to acknowledge, because a program managing ship waste while underway times from 1988 to 1993. The number of underway periods double for ships that are underway for eleven (11) days or more at one time. While underway, ships generate an enormous amount of waste. A carrier can generate over 15,000 pounds of solid waste in just one day, and if none is discharged will fill up a combat logistics



force (CLF) ship in less than a week. These waste streams generated by ships include hazardous materials (HM), oily wastewater, graywater, blackwater, medical waste, air pollutants, CFC's, Halons, antifoulants, and solid waste. Solid waste includes food waste, metal, glass, cardboard, plastics, and paper. The current and near future MARPOL regulations mentioned previously require ships to hold more and more waste while underway, until they can be properly disposed of at a shore facility. The present ship structure was not designed to hold any waste for any period of time. The storing of waste may cause safety and health problems for the ship's personnel, causing the ships to be very dependent on shore facilities. In addition, it affects their missions, is quite expensive, and time consuming to dispose of waste at shore facilities. Seeing that the pollution problem involves 374 ships that generate 100,000s of pounds of just solid waste each day and basically starting from ground zero, and these additional reasons illustraies the need more than ever for a comprehensive P2 program for forces afloat.

The Norfolk Naval Station located in Norfolk Virginia feels the weight of this challenge to prevent pollution as much as any federal facility. As a result of the Base Realignment and Closure (BRAC) proceedings, Norfolk has become the Naval Base for the East Coast and is expected to homeport 40% of the Fleet by 1996. There are currently 72 ships homeported at Norfolk. This includes 6 carriers, 11 amphibious ships, 10 tenders, 11 cruisers, 18 destroyers, 12 frigates, and 11 other support ships. During 1994, these ships generated over 2,019,000 pounds of hazardous material that cost the Base almost \$6 million dollars to dispose of. They also generated 180,499 cubic yards of solid waste. With more ships being homeported at Norfolk and the regulations requiring ships to hold more waste until returning to port, these numbers will rise significantly if pollution prevention measures are not taken.

The Navy has set several short, intermediate, and long term goals for itself to reach compliance with current and upcoming regulations, and to make waste management easier and less costly for itself. The Navy will reach these goals through programs that include hazardous material minimization through better management; installation of Plastic Waste Processors on all ships by Dec 1998; zero discharge of non-food solid waste from surface ships in special areas by 2000; retrofitting present ships with solid waste pulpers to slurry paper, cardboard, and food waste; to concentrate blackwater, graywater, and oily waste using membrane technology now under development; to transfer solid waste slurry and concentrated wastewaters from surface combatants to combat logistics force (CLF) and other large ships for processing by plasma arc pyrolysis or other thermal destruction; and to design future ship platforms that have "greener" systems that meet regulations of today and have allowed room for complying with future regulations. Chart 2 outlines the Navy's strategy for these pollution abatement goals beyond the year 2000.

It can be seen from the above programs that pollution prevention is very dynamic. The Navy is attacking this issue on several levels of management with different Resource Sponsors who will be responsible for funding the bulk of the implementations. As a result, there are so many programs that have started up that it makes it very difficult for the Program Managers to get the much needed support both conceptually as well as financially. Comptroller personnel tend to look at how the Navy stands with respect to being in compliance with regulations at the present time. Mission capabilities as a driving force has not won out in recent years as a good reason for supporting particular environmental efforts. Therefore, programs dealing with that particular compliance issue has priority over a program that might help mission capability.



Adding to the intricacy of all these programs are the Resource Sponsors who have their own agenda, which is partially political in nature, and the communication between Type Commanders has not coincided completely on P2 efforts. The programs appear to be running parallel with each other with no single authority advising their direction. Pollution prevention needs to be institutionalized, and not be attempted in a piece mill fashion if it is really going to take hold as an everyday way of life for the forces afloat.

Programs touched on above involve the Norfolk Naval Base's implementation of the Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) under the guidance of the Navy Supply Systems Command. The CHRIMP program is one approach to solving the proliferation of HM by a life-cycle control and centralized management concept. The CHRIMP Manual has been distributed, and is a ready reference for personnel responsible for implementation and operation of afloat programs. CHRIMP methodology is based on success projects from those pioneer ships mentioned previously, and basically consists of the consolidation of HM so that one "organization" has total procurement, total inventory, and total issue control of all HM on board a ship. This optimum oversight of HM has resulted in reduced amounts of HM procured, used, stored aboard, and thus the amount of spent HM generated for disposal. The following page is an excerpt from Appendix II of the CHRIMP Manual which summarizes the steps to be taken to implement the program. Note the third step of this program is for the ships to acquire HICS capability. HICS stands for Hazardous Inventory Control System, and is the software basis from which CHRIMP will be run. Currently, the target date for HICS implementation on board ships is 01 Oct 1995. The complete CHRIMP implementation date is unknown at this time.

APPENDIX II

CHRIMP AFLOAT CHECK-OFF LIST

ITEM	ACTION	REFERENCE
	1	12342
1	Pre-implementation planning session should licitide	2.3.4.2
	Commanding Officer/Executive Officer (CO/AO),	
	HM coordinator, Department Heads, Division Heads,	
	and work center supervisors.	
2	Select spaces for HAZMINCEN.	2.4.2.2
3	Acquire HICS capability.	
4	Inventory HM on board and conduct ship survey to	2.4.2.4
	ensure all HM is reported on inventory.	
5	Develop plan for phased collection of HM and phased	2.4.2.4
-	implementation of CHRIMP processes.	
6	Promulgate internal procedures for HAZMINCEN	2.2.2.4
	operation to include issue, turn-in and inventory	
	control.	
7	Determine manning requirements and sources.	2.4.2.3
8	Establish anticipated usage rates, inventory levels and	2.4.2.6
	reorder points.	
9	Conduct CHRIMP training and HICS training	2.4.2.3
10	Determine operating hours and emergency response	2.4.2.3
	capability.	
11	Establish budget for HAZMINCEN.	2.4.2.5
12	Coordinate turn in procedures with the local FISC	2.4.2.7

Better management of HM is just the beginning of P2 efforts, and only covers one aspect toward a "greener" ship. A broader program sponsored under CNO N45 which CHRIMP is incorporated in is the Navy P2 Afloat Program. The P2 Afloat Program was organized just this Spring, but it was already at work with several studies to analyze ship processes prior to being established. It is run out of the Naval Surface Warfare Center Carderock Division (NSWCCD) in Annapolis, Md, and has personnel with various expertise contributing to the program. The R&D program for P2 equipment is also out of NSWCCD, and is collaborating on their efforts. The P2 Afloat Program is about analyzing ships processes and developing alternative processes that are "greener"; trying to solve the pollution problem at the source. Specifically, the P2 Afloat Program is presently analyzing areas involving solvents like PD-680, painting, adhesives, sealants, cleaning compounds, and ODS, etc. as well as the possible applicabilities of waste processing devices such as an aqueous parts washer and ethylene glycol recycler. They are taking that information to develop a comprehensive P2 package for a particular ship type that will contain the majority of solutions to pollution problems of today and near future. The ultimate goal of this program is to produce a solutions package for each ship type that can be sent out to be implemented on all ships. They realize the challenge they are up against, but know that doing good things on just one or two ships is not enough. The Program has already started work on their prototype ships, the USS Carl Vinson (CVN-70) and the USS Wasp (LHD 1). They are starting with the larger ships, because they generate ten times the waste of the smaller ships. The Program does have seed money available to make the proposed solutions real for these ships, and the opportunity exists to change the entire Navy afloat, but it will be the regulations that determine where the scarce resources end up. To illustrate this further, several

technologies have existed for years, and if installed would prove to be beneficial in reducing wastes. As part of an R&D program, a suite of four new solid waste processing systems were installed on the USS George Washington (CVN-73) for their 1994 six month deployment by NSWCCD. The systems included a small and large pulper, a solid waste shredder, and a plastics processor, and all proved to be very successful. The reason for the delay of further installation, especially on smaller ships, is the massive cost which must go through the budget cycle for approval, and space constraints. A single installation (including manufacturing) can be well above \$500,000, and therefore becomes extremely limited when trying to implement on all ships.

Now after looking at present efforts, try to expand your view 5 to 30 years down the road, and picture an environmentally sound ship. What do you see? This is the challenge that the Ship Design Standards Process Action Team (PAT) is up against. This PAT (NAVSEA 03V) was chartered in August 1993 to evaluate current ship design standards, and incorporate environmental standards into the ship design process to facilitate the development and production of environmentally sound ships. The PAT is trying to accomplish this by revising the General Specifications (GENSPECS) for ships of the U. S. Navy to include requirements to use specific equipment and processes. GENSPEC sections to be revised is based on vulnerability studies that have been conducted with respect to notices of violations, and the results infer that in-port operations and liquid discharges are of the most concern. Table 1 identifies some major GENSPECS of a ship that must be analyzed.

TABLE 1		_		
Machinery Sys. Engr	Hull Sys. Engr	Combat Sys. Engr	Specs Sys. Engr	Human sys. Integration Engr
Propulsion	Weights	Topside/EME		System safety
Electrical	Arrangements	CS Integration		Manning
Auxiliaries	Habitability	Sensors		Human engr
Deck systems	Hull form	Weapons		
Arrangements	Hydrodynamics	IC/Navigation		
Controls	Structures	Excomm		
Fluid systems	Stability	Training		
Damage control	Materials	Testing		
Fire fighting				

These systems are very complex and are integrated throughout the ship. The PAT must take these systems and develop an environmental profile of any ship, and take into account the life cycle environmental consequences of that ship from design and construction, operation and maintenance, and to its ultimate disposition. Three GENSPEC sections have already incorporated environmental issues, and are propulsion internal combustion engines, freshwater service systems, and environmental pollution control systems. The next ship is LPD-17 and its design is almost complete, and does include the requirements of future regulations. One future advantage of this program is that environmental information will be integrated into the GENSPECs at each revision cycle. This approach will aide in the most challenging area of including allowances in the design that will accommodate future changes in regulations in a ship's life, and at the same time preserve mission capabilities and optimize resources.

As can be seen from this discussion, there are too many programs, projects, task forces, R&D, committees, etc..to even begin to name them all. There is even a Solid Waste Executive Steering Committee that was established in April 1994 to prepare for the Report to Congress due in Nov 1996 on how the Navy intends to meet the no discharge prohibitions deadline of the year 2000. They all have a common goal of reducing waste generation on board ships, but they are also battling for precious resources to stay afloat. Several programs will not be successful, and it is the solutions that are inexpensive and easy to implement that will have the advantage. Time itself and the dynamic regulatory arena will also test these programs. Communication will be essential to transform these various programs into a comprehensive P2 plan for the forces afloat, and to be successful.

To gauge how these various pollution prevention programs are progressing from a ship's perspective, simple Pollution Prevention Assessments were conducted on a Frigate, Destroyer, and an Amphibious ship. Additional information was also obtained on a Carrier. The intent of this case study was to analyze current waste management practices on board ships, and look at the P2 efforts and/or opportunities that can be identified. A Pollution Prevention Assessment is defined as a systematic, planned procedure with the objective of identifying ways to reduce or eliminate waste, preferably at the source. The assessment procedure can be divided into four phases; planning and organization, assessment, feasibility analysis, and implementation. These assessments focused on the first two phases, and were simple in nature. Evaluations were conducted as part of the feasibility phase, but all information will be turned in to the Norfolk Naval Base Environmental Office for further evaluation and implementation as warranted. Table 2 outlines the steps taken in conducting the pollution prevention assessments:

TABLE 2

Planning and Organization
Contact key personnel
Determine how the assessment should be performed
Outline the items to be analyzed
Set overall goals
Assessment
Review of established policies and procedures
Collection and review of reports
Interviews with key personnel

Ship visit and inspection

Collection of data on processes of ship

Create material balances of wastestreams

Compare actual practice to theory

Review training and knowledge of procedures

Generate set of options for further consideration

Feasibility

Analyze the differences between actual practice and theory

Prepare report of recommendations for modifications as necessary

Implementation

Review and implementation of warranted options (not included)

In conducting the assessments, knowledge on the specific characteristics of these ships as well as how they differed had to be gained to understand their particular waste stream relationship. The Oliver Hazard Perry class Frigate and the Spruance class Destroyer ships that were visited are defined as combatants. The Frigate is primarily an ASW ship with limited AAW defense to amphibious and replenishment groups and convoys. The Destroyer was designed to provide AAW and ASW defense for other surface forces. The Third ship is an amphibious assault ship of the Tarawa Class (LHA) which provides amphibious lift capabilities. These ships were found to vary greatly in size and capabilities. Their specific characteristics are summarized in Table 3 below:

TABLE 3

Description	Frigate	Destroyer	LHA
Displacement	3,600 tons	8,040 tons	25,120 tons
Length	445 ft	529 ft	833 3/4 ft
Beam	45 ft	55 ft	106 ft
Draft	24.5 ft	29 ft	26 ft
Propulsion	2 gas turbines, 40,000shp; 1 shaft	4 gas turbines, 80,000 shp; 2 shafts	steam turbine; 70,000shp; 2 shafts
Speed	28 knots	32.5 knots	24 knots
Manning	15 O; 192 E	25 O; 315 E	58 O; 882 E + 1900 troops
Aircraft	2 SH-60B Seahawk	2 SH-60B Seahawk	35 Harrier VSTOL + helicopters

In addition, these ships carry various missiles, guns, radars, sonars, fire control, and electronic weapons to conduct their missions. The main spaces for mission requirements include engineering, combat, bridge, navigation, etc..., and spaces for living include rack spaces, state rooms for officers, restrooms and showers, galley and mess decks, wardroom and other break areas, etc...The design of these ships minimized on "extra" spaces, making the task of finding additional space for environmental "equipment" a difficult challenge.

As previously discussed, these ships generate various wastes while conducting their missions. Figure 1 is a schematic of typical pollution control problem areas on a ship. This case study focused on only three main wastestreams that cover eight (8) waste types that are of most concern to the Navy. They include hazardous material, solid waste, and discharges. Hazardous material can be defined as any material that, because of its quantity, concentration, physical or chemical characteristics, may pose hazard to human health or the environment when incorrectly





Figure 3. Typical Ship Pollution Control Problem Areas.

used. Hazardous material includes paint, solvents, adhesives, and all types of oil. Solid waste for a ship is its trash and garbage; including plastics, cardboard, glass, food wastes, paper, wood, and metal. The discharges from a ship cover two categories; oily and non-oily wastes. There are three primary sources for oily waste. They include bilge water, ballast, and waste from the waste oil storage tanks. The generation of the oily waste is a result of when fuels, lubricants, greases, oils, and hydraulic fluids mix with water. The non-oily wastes include two main types, blackwater and graywater. Blackwater is made up of human waste and flushing water from water-closets and urinals. Graywater is made up of liquid waste from showers, sinks, laundry, gallery, and scullery activities.

HAZARDOUS MATERIALS

To study these wastestreams, ship visits were conducted to determine the process of each waste from generation to disposal. To start with hazardous material, the process begins with ordering the hazardous material, and involves storing, issuing, using, and disposing of the waste. For simplicity, the process for the Destroyer is outlined below, and distinct differences of the other ships are pointed out when necessary.

The HM Coordinator (HMC) uses a high/low ordering system on the HICS program. But normally when a Department needs a HM, they fill out a request form, have it signed by the Department Head for authorization, and submit it to the HMC for ordering. The HMC utilizes the high/low levels of HMs, and the request forms submitted to determine orders. The HMC will first look up all requested items in the Ship's HM list (SHML) to insure the items are authorized. If so he will first review the Reutilization Office's printout of current inventory to identify if there are any matches. The HMC will enter any remaining items into the program to create an order for HM. While in an INCONUS (in the U.S.) status it can take up to 5 months to get some items if they are not available from the Reutilization Office or Servmart, but while OUTCONUS (outside U.S.) status it usually only takes 2-3 weeks to obtain needed HM. It is interesting to point out that the Frigate has just received the computer and HICS software on board, and plan to have the system installed and all Department HM inventory entered into HICS by the end of August. Complete tracking and control of HM has not taken hold on board, though. The LHA is ahead of both ships. The LHA has HICS 4.0 version, and utilizes for inventory, issuing, and ordering. The LHA has a centralized HM office with some elements described by CHRIMP.

The next step is the storing of HM. There are several locations for storing HM for its various uses, but at the same time space is quite inadequate relative to the need. Table 4 identifies the storage spaces which are similar for the Frigate and Destroyer:

STORAGE NAME	САРАСІТҮ
MAIN FLAM LOCKER	45 - 5 GAL CTRS
PAINT LOCKER	640 GAL
PAINT ISSUE LOCKER	150 GAL
CLEANING LOCKER	450 GAL
9 WC LOCKERS	10 GAL EACH

TA	BL	Æ	4
----	----	---	---

The main flammable locker contains flammable and combustible HM, and the 9 Work Center (WC) lockers contain cleaning supplies that will last the WCs up to one week. Table 5 on the following page lists typical cleaning supplies found in their lockers. One problem with storage

<u>ITEM</u> 06 - /6 -193	STOCK NUMBER	REO. AMT.	ĪŊ	COST	ΔTΩ	NEED	ON ORDEH
PINE OIL	6840-00-687-7904	10	CSE	49.20	10/56		
SPRAY'N'WIPE	7930-00-926-5280	10	CSE	58.55	5656		
SHOWER MATS	7220-00-634-1601		EA	8.80	784		
CURTAINS	7230-00-205-1762		EA	4.76	2 (5F		
BROOMS	7920-00-291-8305		EA	7.82	4 BX		
SWABS	7920-00-224-8726		EA	4.95	6 BX		
SPONGES	7920-00-240-2559		EA	.76	Q B K		
TOILET CLEANER	7930-00-559-9481	25	CAN	1.30	YGCAN		
SPRAY-N-BUFF	7930-01-363-3573	10	CSF	59.24	2 Rie		
STRIPPER	7920-01-363-1630	10	BX	43.20	S List		
BIRSCH WAX	7930-01-363-6457	14	BX	97.80	1906		
TOILET PAPER	8540-01-055-6094	20	BX	32.55	2405		
SCOURING POWDER	7930-01-294-1115		DZ	7.00	4 45 6		
PLASTIC BAGS, SMALL	8105-01-183-9768	4	BX	13.80	4184		
PLASTIC BAGS, LARGE	8105-01-174-0942	7	BX	24.73	276%		
STEEL WOOL	5350-00-242-4404	_	LB	1.98	1001		
HAND SOAP	8520-00-270-0065	-1	BX	3.01	30%		
PAPER BAGS, LARGE	8105-00-543-7169	15	STAC	22.51	28TAC		
PAPER TOWELS	7920-00-823-9772	£	CS	26.99	7 26		
GREENIE WEENIES	7920-00-753-5242	ы	рКG	2.11	SPKC		
DUSTPANS	7290-00-616-0109	15	EA	1.71	1 July SING	L.	
FOXTAILS	7920-00-233-3737	15	CS	2.47	13 SINGE		
SPRAY-NINE	7930-01-177-0795	5	BX	22.38	/ O QX		
BUFFING PADS	7920-01-262	Ľ	נכ				

APPROVED BY:

REVIEWED BY:

SUBMITTED BY:

is there is no space designated for spent HM that must be collected, containerized, and stored until it can be off-loaded. The HM that is turned in is stuck in with the storage lockers when possible, and otherwise is placed in spaces designated for other uses. Figures 2 and 3 illustrate the lack of storage space on board Navy ships today. Storage capacity on the LHA is not the critical issue it is on the smaller ships. From Table 3, the LHA is approximately twice as large as a Destroyer, and accommodating their HM storage needs is not a problem. Enclosure 2 of the raw data for the LHA found in Appendix A lists the 32 authorized storage locations for HM. You can already start to realize the challenges the smaller ships face in trying to manage their HM just based on their size and manpower.

For the issuing of HM, the HMC controls access to the main flammable locker, and has set hours for issue. The boatswain mates have control of the paint lockers, and issue paint as necessary. Before HM can be issued the HMC requires the receiving Department to show evidence that they possess the appropriate MSDS, and if not the HMC will print one from the CD-Rom for them. The HMC has the master file, and the Departments hold MSDSs for the HM they use. Every item that is issued is entered into HICS for tracking. Information entered includes what the HM is, when it was issued, how much, and whom it was issued to. The LHA has a bigger operation, and thus has a central issue room which HM is checked out of. There are additional locations that HM can be issued, but everyone must go through central issue to get a "chit" authorizing them to receive that HM. Personnel requiring HM often bring a PMS (maintenance) card to central issue to ensure they only get the amount of HM necessary to perform the particular maintenance. HM issue personnel often transfer larger containers such as 5 gallons into smaller quart and pint size containers to minimize the amount of HM leaving the





HM STORAGE

FIGURE 2

In the second se



PAINT STORAGE ROOMS

÷

issue room. These procedures make it easy to keep control of the HM, and they also use less.

After lack of space, turn-in and disposal are the next biggest problem areas for the smaller ships. It is this turn-in process that is the concern for the LHA. The HM process starts to breakdown here, possibly due to lack of training, high rate of turnover in individual assignments, or lack of communication. These reasons result from the fact that there is no enforcement from the top down yet when it comes to the environmental atmosphere on board a ship. Even though the ships are aware of the new HM programs, there still is not enough emphasis put on it to make it an everyday way of life. Simply stated, it is hard to change no matter what that change is even if it is for the better of all parties involved. All spent HM should be turned in to the HMC for tracking purposes as well as for actual disposal. Some personnel do not know proper disposal procedures, or are turning the spent HM in themselves for disposal while in port. When this happens, the cradle-to-grave tracking of a specific item stops. On the LHA, personnel sometimes give the HM they received to their "buddy" who might be finishing a maintenance job and then forgets to turn in the used HM. The HMC for the LHA would like to have a HM card issued to all personnel, and when they check out HM the card is turned over and will not be given back until that same person returns the used HM. They can not check additional HM out either until the previous HM has been brought back.

For disposal, the ship personnel properly package and label spent HM for PW. The HMC fills out 1348 Forms for each HM for turn-in to PW. The 1348s are a record of accountability for the ship and a way of billing for PW. PW picks up HM at the head of the pier, signs off on the 1348s and gives a copy back to the HMC. See Appendix A for copies of the 1348s identifying the wastes turned in to PW. FISC Norfolk is with PW to take acceptable material to

their reuse store. HM is free to pick up or drop off to them. PW takes this spent HM and delivers waste oils to Craney Island for recycling, metals to the Metals Yard for recycling, designated hazardous waste is prepared for contractor disposal, etc.. Appendix B contains the HM/HW Minimization, Reutilization, and Disposal Guide put out by COMNAVBASE Norfolk which outlines all the disposal options available for waste generated from ships. Options such as crossdecking, extending shelf life, and recycling are included.

To understand this process for individual HM, a material balance was performed on the HM from ordering to disposal. From this, possible P2 opportunities may exist for material substitution, or process modification. Table 6 on the following page displays the material balance of HMs used on board the Destroyer. The raw data that this table was generated from can be found in Appendix A. This same information was obtained for the LHA, and the data can also be found in Appendix A. Additional tables of their HM were not created, because analysis of the raw data indicates good HM management practices in tracking their HM from cradle-to-grave, and therefore would serve no further purpose.

ABLE 6						
HAZARDOUS MATERIAL (HM)	HM IN INVENTORY	USE OF HM	% OF MAT'L THAT SHOULD BE USED	HM TURNED IN TO REUTILIZATN	HM TURNED IN TO PW	DISPOSAL METHOD
lapping cmpd	1 ctr	unknown	100%	none	0	
insulating cmpd, electric	l can	electrical eqpt	100%	none	0	
propanenone	4 cylinders	light off P250 pumps	100%; empty cyl	none	0	
engine cleaning cmpd	8 gallons	general purpose	spent remaining	none	0(1)	
contact cleaning cmpd	1 ctr	general purpose	spent remaining	none	0 (1)	
leak detection cmpd	7 bottles	unknown	100%	none	0	
silicone cmpd	I tube	lubricating grease	100%	none	0	
joint thread sealing cmpd	2 cans	sealer	100%	none	0	
corrosion resistant cmpd	1 ctr	sealer	100%	none	0	
sealing cmpd	1 ctr	sealer	100%	none	0	
adhesive	9 cans	glue	100%	none	1 can; 8 lbs	HW; ctr disposal
scotchgrip adhesive	3 ctrs	glue	100%	none	0	
gear lube oil	2 gal	lubrication	old recovered	none	2 Dr; 126 Lbs (2)	recycle/reuse
moly B grease	1 ctr	lubrication	100%	none	0	
cherry hydraulic fluid	2 gal	lubrication	old recovered	none	9 Dr; 3750 Lbs (2)	recycle/reuse
acetone	3 ctr	clning eletrical eqpt	100%	none	0	
fire resistant adhesive	20 qts	glue	100%	1 gallon	0	
RTV/white	12 tubes	caulking	100%	none	0	
Paint, various (3)	98- 5 gal; 35 -1 gal	painting surfaces	100%	none	3-5 gal; 3-1 gal	HW; Ctr disposal

HAZARDOUS MATERIAL (HM)	HM IN INVENTORY	USE OF HM	% OF MAT'L THAT SHOULD BE USED	HM TURNED IN TO REUTILIZATN	HM TURNED IN TO PW	DISPOSAL METHOD
rubber base adhesive	1 qt	glue	100%	none	0	
denatured alcohol	30 cans	clean electrical eqpt	100%	none	0	
antifreeze	11 gal	antifreeze	old recovered	none	0 (4)	
antisieze, moly B	7 ctr	lubricating grease	100%	none	0	
lube oil, 2 cycle engine	33 qts	lubrication	old recovered	none	1 Dr; 420 Lbs (2)	recycle/reuse
corrosion prevention	9 gal	sealer	100%	none	0	
corrosion prev. spray	120 cans	sealer	100%	none	0	
cutting fluid	5 cans	lubrication	100%	none	0	
glass cleaner (5)	1 ctr	general purpose	100%	none	0	
aircraft grease	2 gal	lubrication	100%	none	0	
general purpose grease	3 qts	lubrication	100%	none	0	
wire rope grease	l ctr	lubrication	100%	none	0	
hydraulic fluid, petro base	none	lubrication	old recovered	2 gallons	9 Dr; 3750 Lbs (2)	recycel/reuse
cleaning cmpd	5 gal	general purpose	spent remaining	none	0 (1)	
isopropyl alcohol	10 cans	clean electronic eqpt.	100%	none	l can	HW; ctr disposal
aircraft turboshaft oil	708 qts	lubrication	old recovered	none	1 Dr; 420 lbs (2)	recycle/reuse
hydraulic fluid	2 qts	lubrication	old recovered	none	9 Dr; 3750 lbs (2)	recycle/reuse
hydraulic fluid	6 gal	lubrication	old recovered	none	9 Dr; 3750 Lbs (2)	recycle/reuse
instrument lube oil	10 qts	lubrication	old recovered	none	1 Dr; 420 Lbs (2)	recycle/reuse
steam turbine lube oil	42 gal	lubrication	old secovered	none	1 Dr; 420 Lbs (2)	recycle/reuse
naphtha aromatic	I gal	unknown		none	0	-
sealing cmpd type 3	2 pints	sealant	100%	none	0	

1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -

HAZARDOUS MATERIAL (HM)	HM IN INVENTORY	USE OF HM	% OF MAT'L THAT SHOULD BE USED	HM TURNED IN TO REUTILIZATN	HM TURNED IN TO PW	DISPOSAL METHOD
silicone cmpd, DC-7	4 tubes	Iubricating grease	100%	none	0	
silicone cmpd, Dc-6	10 tubes	Iubricating grease	100%	none	. 0	
weapon oil arctic	12 qts	lubrication	100%	none	0	
sodium bicarbonate	2 LB	deodorizer	100%	none	0	
talcum powder	1 cup	medical	100%	none	0	
plug valve grease	4 tubes	lubrication	100%	none	0	
plastisol cmpd	7 ctr	sealant for duct	100%	none	0	
aircraft clng cmpd aerosol	48 dozen cn	aircraft parts cleaner	100%	none	0	
aircraft cmpd Clean	2 gal	clean parts	spent remaining	none	0 (1)	
corrosion prev. cmpd Ty2	2 qts	sealer	100%	none	0	
roller bearing grease	5 cans	lubrication	100%	none	0	
gear lube oil	20 qts	lubrication	old recovered	none	1 Dr; 420 lbs (2)	recycle/reuse
scotch kote	3 cans	electrical insulation	100%	none	0	
graphite/colloidal	3 ctrs	unknown		none	I	-
cleaner/preserver	19 gal	general purpose	spent remaining	noite	0 (1)	
dry clean solvent PD680	2 pts	clean bolts, screw,etc	spent remaining	none	0 (6)	
insulate electric cmpd	none	insulation	100%	2 gallons	0	reuse
catapult hydraulic fluid	3 qts	lubrication	old recovered	none	9 Dr; 3750 lbs (2)	recycle/reuse
ethylene glycol	39 gal	antifreeze	old recovered	none	9 gal (7)	HW; ctr disposal
mineral oil	1 ctr	wood preserver	100%	none	0	
refrig. lube oil	5 gal	Jubrication	old recovered	none	1Dr; 420 lbs (2)	recycle/reuse
RCO-2 refrig. lube oil	28 qts	lubrication	old recovered	none	1 Dr; 420 Lbs (2)	recycle/reuse

				وخبين فقففت أرازان والمستعمان والمتعامل		
HAZARDOUS MATERIAL (HM)	HM IN INVENTORY	USE OF HM	% OF MAT'L THAT SHOULD BE USED	HM TURNED IN TO REUTILIZATN	HM TURNED IN TO PW	DISPOSAL METHOD
Rags	several bags	clean up	%0	oone	3 bags; 55 lbs (8)	commingled waste
oil filters	unknown	machinery	0%	none	1 bag; 5 lbs	commingled waste
OBAs	unknown	fire fighting	0%0	none	1 Dr; 69 lbs	HW; Ctr disposal
epoxy coating	none	coat various surfaces	100%	2 pints	0	reuse
polyurethane coating	none	coat various surfaces	100%	1 pint	0	reuse
gray epoxy coating	none	coat various surfaces	100%	4 gallons	0	reuse
colorfaice grout cmpd E	none	grouting	100%	4 gallons	0	reuse
Aliphatic polyurethane	none	sealer	100%	3 gallons	0	reuse
paint thinner	unknown	clean eqpt	spent remaining	none	(6) 0	

From examining Table 6 and the general process procedures just discussed, several P2 efforts are in effect on the LHA, and several possible P2 opportunities exist for all three ships. Several process modifications can be made, and P2 equipment could be installed based on previous programs discussed as well as from information in the Technologies section that follows. Basically, the waste management practices on the Frigate and Destroyer are poor at best. The LHA is actually ahead of the time line for CHRIMP implementation. The waste generation through improper disposal can be minimized and improvement of overall management of HM can be obtained by implementing HICS to its fullest capacity and making the ships's personnel aware of the centralized tracking system that exists through the HMC. Department specific HM training that covers their HM should also be given. Table 7 of the Regulations section should be consulted for proper HM disposal procedures. The following comments are on specific HM processes shown in Table 6. The numbers correspond to the numbers in parenthesis in Table 6.

(1). The general purpose cleaning compounds are used to clean various types of tools and equipment. Rags and brushes are used, or the item to be cleaned is placed in a container to be cleaned. As a result of the cleaning process, spent cleaning compound has been generated. For the case study, this spent HM has not been collected for turn-in to PW while in port or underway. Appendix B3-C of OPNAVINST 5100.19c must be consulted to determine proper disposal (see Table 7 of Regulations section). Based on interviews, it is believed the material has been placed in the ship's deck drain system, or has been placed in the waste oil storage tank. The deck drain discharges directly to the water, and the holding tank is intended for petroleumbased HM only.
The LHA has substituted Simple Green for the general purpose detergents. It is biodegradable, and is safe to go down the deck drains. The LHA have been using this non-hazardous substitute for one year, and found out about it through the message traffic.

(2). All old lube oils and hydraulic fluids that are recovered through normal maintenance are placed in drums in the oil lab. While in port, the Engineering Dept is turning full drums directly into PW and receiving new empty drums in return. This disposal method is appropriate, but the Engineering Dept has failed to coordinate with the HMC to ensure cradle-to-grave accountability for all HM. The HMC has no 1348s to account for this waste oil. Currently the Frigate is holding all HM on board until it can be disposed of at a shore facility, but they are not realizing that certain items are HM and are placing them in the improper location. The Frigate has used the oil lab containers for other items such as paint thinners, and most Engineering wastes are going to the oily waste holding tank. This may not be acceptable for underway since this includes solvents and other cleaners. And such things as rags are going to the regular trash. Therefore, contents of containers are not well documented when it comes time for disposal. For the LHA, old pump oil is sent to the settling tank where it is purified and cycled back for reuse. Used synthetic oil, transmission fluid, and old hydraulic fluid is turned in to the HMC for storage and disposal. Lube oil and fuel oil are placed in the oily waste holding tank. This may be of concern while underway, because the LHA does not have an OWS, and may not be able to achieve <15ppm when discharging.

(3). There was no official inventory list for the paint stored in the main paint locker or the paint issue locker. There is no aesthetics painting, but whenever a space is deemed requiring of paint it is painted. One hundred percent of the paint should be used if properly stored

between uses. Paint chips and rags are bagged for turn in. Empty metal containers are placed in the metal bin located on the pier while in port. When underway, the personnel poke holes in the empty metal containers and discharge them directly overboard. All empty metal containers are returned to the HMC on the LHA for storage and disposal whether in port or underway. The HMC holds them while underway, and only discharges them over board if there is no more room. Paint rags are held while underway, but once in port (if dry) are placed in the regular trash bins. Painting procedures need to be modified on the LHA. Painting appears to be a way of life on the ship; spending over \$13,000 on paint during just the last trip to Servmart (see Appendix A Servmart shopping list).

(4). Antifreeze is used throughout the ship. Periodic maintenance is conducted every six months on equipment containing antifreeze. Antifreeze recovered from this procedure should be containerized and turned in to PW for proper disposal while in port. Some Ethylene glycol has been turned in, but not enough to balance the material used.

(5). A number of HM has been ordered by the Supply Officer who did not inform the HMC, so the HM can be properly accounted for in the inventory. Glass cleaner is an example of this. Only 1 ctr is known to be in inventory, but a 5 gallon bucket full of 8 oz bottles was found in the paint locker, and another bucket full of cleaner bottles was found stored in the trash room. the HMC said it appears that there is HM floating around the ship that is not documented in the inventory. This is also the case on the other two ships. Tracking of HM fails also when HM is issued by the Supply Dept who also have a key to the flammable locker. The HMC is not informed of whom it was issued to, and if none is returned, that HM is lost from the tracking system. The HMC is the only person at this time trained on how to use HICS. Thus, if he issues

the HM it is logged in, if not then the HM is not logged in and lost from the tracking system. The Frigate's tracking system is not centralized at this time. Each Department contains their own inventory, and lets the Supply Department know what is needed. There is no control to be able to track their HM. All HM is issued through the central issue room on the LHA, and logged into the computer as previously discussed. This is good for tracking who it is issued to, but does not help if people do not return the HM when finished.

(6). Similar situation to number (1). This HM is identified separately, because it is PD-680. This all purpose cleaner is used most by the engineers to clean everything from bolts and nuts to tools. The spent PD-680 is being placed in the waste oil storage tank. This is not the preferred method, but it is a petroleum-based HM, and by placing it in the waste oil tank it is being containerized. PW drains that tank, and sends it to be recycled. This is not appropriate disposal while underway. This ship does not have a OWS. Soundings are taken and water portion is drained and discharged. PD-680 Type II is only used by the gunners mates on the LHA. They have been using Bio-Tech Hi-Solve as a substitute. It is hazardous, but less hazardous than PD-680 type II or Type III and is said to work well.

(7). Only some spent ethylene glycol has been returned for proper disposal.

(8). Rags are used everywhere, and constantly to perform maintenance, and for clean up. The rags are often saturated when bagged which has caused future clean up necessary. Some Departments have stored their own spent rags, and have directly turned them in to PW, but unfortunately they have also been found in the garbage. All rags should be returned to HMC for accountability.

(9). There is no official inventory of paint thinner. No spent paint thinner has been turned in to the HMC for proper disposal either. Paint thinner has been placed in the deck drain, discharged directly overboard, and placed in the waste oil storage tank, in port and while underway. All three methods are against regulations. Placing paint thinner in waste oil tank can cause it to be "hot" and contaminated waste that must be disposed of as a HW by PW instead of sending it out to be recycled.

(10). There is no account of batteries.

Some additional P2 comments regarding the LHA include the daily use of OBAs. Every day fire drills are run utilizing the OBAs. The HMC receives 5 to 10 OBAs a day for storage and disposal. 29 OBAs were turned in while conducting the inspection. There does not appear the need to actually use the OBAs during each drill; a simulation drill could sometimes be incorporated. This is mentioned, because the OBAs are very expensive for the Base to dispose of. One additional P2 effort is the LHA is substituting Pine Oil with a degreaser called IMPACT. IMPACT does a great job and can be placed down the deck drain. The only draw back is that it is expensive to purchase. In being a large ship, the LHA does not appear to experience the money problems that the smaller ships have. If the HMC is running short, the Supply Officer taps funds from the Department who is actually using the needed HM.

SOLID WASTE

As previously stated, the process of solid waste generation on average generates 3 pounds of solid waste per person per day. Charts 3 and 4 give a breakdown of solid waste generation by weight and volume. The charts read starting at the top, and the area to note is plastics. Though



CHART 3



plastics only account for 7% by weight, they make up 37 % by volume. This is important, because the following Regulations section explains that there is zero discharge of plastics in several areas, and zero discharge deadline by the year 2000. Presently, when solid waste is generated throughout the ship, plastics are separated from non-plastics. The non-plastics include glass which there is little to account for, cardboard, food wastes, metal and paper. The plastics are stored in the trash room until they can be disposed of in port. At the beginning of an underway period the trash rooms are full of supplies (see figure 4). Once these supplies expire while underway, there will be room for the plastics. Until then personnel find creative ways of finding places to hold plastics until they can be disposed of in port. Triwalls made of cardboard is the method used to separate plastics from everything else. To address other solid wastes, food waste is placed in a food grinder which reduces the waste to a slurry and then it is discharged overboard. The ship has no other solid waste processing devices, so all cardboard, glass, paper and metal is collected in trash bags and discharged off the ship during appropriate times and in proper areas. The trash bags themselves are not thrown overboard. There is no aluminum can recycling on board due to lack of space. The LHA has taken their solid waste management one step further. In addition to triwalling plastics, they also keep paper and cardboard until in port. the LHA has 3 food grinders that are used while underway, but food items such as rice, egg shells, and noodles can not be placed in the grinder because they will clog up. These items are also triwalled while underway. They do have a trash compactor, but it is too small to bother using. They also have an incinerator, but have not used it since a detachment of Marines were on board. There is not enough manpower to run it otherwise, and even then it is only used for cardboard. There is no aluminum recycling on board. The LHA has pushed it, but need a



TRASH ROOMS

compactor to crush the cans. It is interesting to note that the LHA does have some solid waste processing devices, but can not fully utilize them due to size, configuration, and manpower problems. These problems need to be known by R&D in designing new systems to ensure things such as large enough exiting piping or clean outs for the food grinders. Even though the right thing is being done by holding solid waste, the potential for unsafe living conditions exist. The Navy is installing plastics processors on all ships, but will it solve the problems for the smaller ships is unknown.

DISCHARGES

Oily Wastes are generated from performing various types of maintenance on equipment. The spent lube oil, and hydraulic fluids are collected in 30 gallon containers and are turned in to PW for recycling while in port. Other waste oil that is collected in the waste oil storage tank is pumped to a ships waste offload barge (SWOB). This is transferred to Craney Island for recycling. A SWOB has a 1000ppm halogen level that can be accepted by the contractor. Putting non oil-based items in this would increase the halogens causing it to be considered "hot oil". Regarding the bilge water, only the Frigate has an Oil Water Separator. While in port, the bilge water is pumped to an oil draft raft (ODR), and then the oil which is separated in the ODR is transferred to a SWOB. Blackwater is collected in 2 - 500 gallon Collection, Holding, and Transfer (CHTs) systems and is transferred every couple of hours to a SWOB. Graywater is collected in 4 different CHTs and then is continuously discharged directly to a SWOB. Disposal procedures are quite different once underway for oily waste, blackwater, and graywater, and unfortunately differ from port to port. The following Regulations section discusses proper

procedures for disposal. P2 opportunities include training of personnel to ensure no HM is placed in with the discharges, and the installation of P2 equipment.

The P2 efforts on these ships vary greatly. The size, manpower, and capability of the ship plays a factor, but whether or not the ship's Commanding Officer and crew wants to make strides in pollution prevention is the biggest factor. This is exemplified by the actions of the USS George Washington (CVN-73), and their results are definitely worth discussing. In 1994 this carrier was chosen as a test site for a suite of four new solid waste management systems that were developed by the Carderock division under the direction of NAVSEA 03R/03V, and fabricated by the Machinery Technology Division of Westinghouse Corp. These systems included a small and large pulper for paper and food waste, a solid waste shredder, and a plastics processor. The four systems were installed prior to the ship's 1994 six month deployment to undergo technical and operational evaluation. The plastics processor processes at a rate of 30 pounds per hour producing 20 pound, 20 in diameter stable disks. While at sea, a carrier can generate approximately 1,200 pounds of plastic waste per day. During their deployment, the plastics processor produced 5,000 disks weighing a total of 48,600 pounds. The large pulper grinds mixed paper and food waste into a 1 or 2% seawater slurry for overboard discharge at a rate of 680 pounds per hour. While underway the pulper operated successfully an average of 21 hours per day. The small pulper was also successful in its testing. The solid waste shredder processes metal and glass waste into a sinkable form for overboard discharge. During the deployment, 185,000 pounds were processed, and could be discharged during flight operations. In addition to the engineers and technicians, this pilot study was such a success because of the cooperation of the ship. Personnel were open-minded and had the right attitude towards the

whole study. The USS George Washington's (GW) enthusiasm for preventing pollution did not stop here with solid waste. As a result of hard work from an entrepreneurial, SK1 Sheridan, and the support of his Command, GW has created a program that streamlines HM management that is line with the proposed CHRIMP. GW shows that following established guidelines, good training, and getting into a routine is the key to HM almost taking care of itself. GW established guidelines by identifying all HM used on board, and explicitly defined how each should be used, stored, and disposed of; and put this information together in a compact HICS User's Catalog. The Catalog even has a HICS shopping list included to inform personnel what is available. GW has clearly outlined how spent HM is to be turned-in while in port or underway. This table is included as Appendix C of this project. Information on their discharge management was not available.

REGULATIONS

As with any other corporation or industry that produces waste, there are a large number of federal and state regulations that govern what can and can not be done with respect to the environment. The number of these environmental regulations have increased significantly in recent years, and these regulations are in a continuous state of change. The U.S. Navy is a very unique corporation with special requirements, and therefore has its own set of Policies in addition to other regulations. A number of the federal and state regulations have been modified for forces afloat in the past to accommodate this unique atmosphere. For example, under the Federal Facilities Compliance Act of 1992, Navy ships shall not be subject to the storage, manifest, inspection, or recordkeeping requirements of RCRA until such waste is transferred to a shore facility...Basically, ships do not generate HW just spent HM. The Navy operates in a manner that is compatible with environment, and in order to accomplish the mission element, personnel must be aware of the environmental regulations which have been established by the federal, state, and local governments. The Navy afloat has three main publications that outline everyone's responsibilities with respect to shipboard waste generation, and specific procedures that must be adhered to. The publications incorporate the federal and state regulations that apply.

The first publication is OPNAVINST 5090.1C, Environmental and Natural Resources Program Manual. Chapter 19 outlines responsibilities for environmental compliance afloat, and focuses on the discharge regulations for all wastestreams. OPNAVINST 5100.19C, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat covers all safety

disciplines from heat stress to underway replenishment. Chapter B3 outlines the Hazardous Material Control and Management Program, and Chapter C23 covers HM storage, Use, and Disposal Precautions. The last publication is S9086-T8-STM-010 Chapter 593, Pollution Control. This technical manual assists ships by summarizing the Navy pollution abatement program, and includes proposed pollution control equipment.

When waste generation afloat and pollution prevention topics are covered in the regulations, the discussion always covers the eight (8) main wastestreams that are of concern and are defined as follows:

HAZARDOUS MATERIAL (HM): Any material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a substantial hazard to human health or the environment when incorrectly used, purposefully released, or accidentally spilled. HM include flammable, combustible, toxic, corrosive, and oxidizing materials, and aerosol containers, and compressed gases.

OILY WASTE: Petroleum-based fluids like fuels, lubricants, greases, lube oils, and hydraulic fluids mixed with water or other fluids that make the mixture no longer useable as intended. GRAYWATER: Discarded water from showers, sinks, laundries, gallery and scullery activities, and deck drains.

BLACKWATER: Human body wastes and flushing water from water-closets and urinals. GARBAGE: All forms of shipboard solid waste, including plastics, food waste, and dry wastes such as paper, cardboard, wood, metal, and glass.

GARBAGE (PLASTICS - FOOD CONTAMINATED) GARBAGE (PLASTICS - NON-FOOD CONTAMINATED) MEDICAL WASTE (INFECTIOUS AND SHARPS): Waste that is generated during patient diagnosis, treatment, or immunization.

The main federal regulations that govern these wastestreams are listed below, and the proper disposal procedures are summarized in Tables 7 and 8. Further information on their applicability to ships can be found in the three main Navy publications introduced above: RESOURCE CONSERVATION AND RECOVERY ACT (RCRA): RCRA basically states that HW generated on vessels shall not be subject to storage, manifest, inspection or record keeping requirements until such waste is transferred ashore.

TOXIC SUBSTANCE CONTROL ACT: Restricts manufacture, use, labeling, and disposal of PCBs, asbestos, and asbestos-containing waste.

CLEAN WATER ACT: Outlines discharge restrictions. Specifics are in table 3. For more information on the problems of the CWA as it applies to the Navy, refer to William and Mary's Environmental Law and Policy Review, Volume 19/Number 1 dated Fall 1994; Regulation of Navy Ship Discharges Under the Clean Water Act by Daniel O'Toole.

THE ACT TO PREVENT POLLUTION FROM SHIPS (APPS): This implements the stringent oil and oily waste discharge requirements of Annex I of MARPOL, and implements MARPOL Annex V which addresses shipboard solid waste discharge at sea.

MARINE PLASTICS POLLUTION RESEARCH & CONTROL ACT: Passed in 1987. This is the U.S. enactment of MARPOL.

CLEAN AIR ACT: Ships must comply with regulations for air emissions.

U.S. PUBLIC VESSEL MEDICAL ANTI-DUMPING ACT: Prohibits public vessel dumping of medical waste into ocean waters during peacetime, except under emergency conditions.

TABLE 7	N DISPOSAL OF BIL	pendia B3-C Pecarp Bazarbous Matricial	
Shipboard Basardous Material Type	Generation Source	Associated Basardous Material	Authorigqd Disposal Mathoda
Components containing polychlorinated biphenyls (PCBs)	Capacitors, coils (usually with radar systems) (listing by NSM of components containing PCBs for each ship has been provided under separate cover)	PCBa	Containprise for shore disposal
Ghlorinated solvents	Cleaning operations	Perchioroethylene, trichlorethylene, trichlormethane, trichloroethane, freon ^{um}	Contain _t rize for shore disposal: keep agparate from nonchlorinated solvente
Nonchlor Insted solvents	Cleaning operations	Ethyl acetate, acetone, morpholine, methyl ethyl keytone, toluene, xylena, kerosene, Stoddard solvent, petroleum, naphtha (petroleum ether)	Containyrise for shore disposal, keep separate from chlorinated solvent
		Ethylene glycol, methyl alcohol, ethyl alcohol, butyl alcohol	Overboagd discharge permitted beyond j2 ngi of shore; in port, containgrise for offload
Mastes from painting, resurfacing operations	Paints, enamels, varnishes, lacquers, paint chips	Petroleum distillates with lead/cobalt drier, cadmium, chromium, lead oxide	Containerize for shore disposal
	Thinners, strippers	Toluane, xylene, styrene, phenol, methyl isobutyl ketone, cresol, chlorob <mark>enzene</mark> turpentine	Containerize for shore disposal
Waste oils	Non-PCB containing capacitors, colls	Mineral, silicone, paraféin based oils	Containerize for shore disposal
	Cutting fluids	Chlorinated and sulfurized mineral oils, MIL-C-47220	Containerize for shore disposal
	Damping fluids	Silicone based olis, dimethylpoly- siloxana	Containerize for shore disposal
	Lubricant oils from machinery, turbines, engines, motors	Lubricant oile in accordance with MIL-L-9000, MIL-L-15019, MIL-L-17331, and MIL-L-24467	Containgrize for shore disposal
Olly sludge	Residue from oil/water separators, fuel tanks	Oll mixed with lead, zinc, chromium, copper, tin residues	Containnificate for shore disposal

.

OPNAVINST 5100.19C 19 January 1994

Appendix B3-C

	Appen DISPOSAL OF SHIPPO	adia B3-C Ard Pazardous Mathulai Filinurd)	
Shipboard Basardous Vecceid Tma	Camaration Source	Associated Basardous Material	Authorised Disposal Mathods
Oily solid vaste	Contaminated sorbents, oil and fuel filters	Items coated with residual oil	Jettison beyond 50 mml of shore: dischares material must be negatively buoyant: containerise for shogs disposal if vithin 50 mml af shore
Greases	Machine maintenance, motora, rollar bearings	Gresses such as: MIL-G-18458, MIL-G-18709, MIL-G-21164, MIL-G+24139, MIL-L-15719, DOD-G-24508;	Containarise for shore disposal
Non-olly lubricants	Machine maintenance, motors, roiler beatings	Lead oleate, dry lube, (pitiselts), colybdenum, graphite	Containerize for shore disposal
Water with corrosion inhibitors	Diesel generator cooling water, closed loop cooling water, locked-in ballast, fuel ballast	Ethylens glycol, sodium silicate	Overboard discharge permitted beyond 12 nml, of shore! within 12 nml, conteiner:se for shore disposal. Containerise excess stock treatment chemicals for shore disposal
		Sodium chromate, solution mixed with residual fuel or soluble oil	Overboard discharge permitted beyond 50 nml of shore; within 50 nml, containerise for shore disposal. Containerise excess stock treatment chemicals for shore disposal.
Synthetic hydraulic fluids	Aircraft elevators, weapons handling systems, some ballast valve operating systems and repienishment at sea (RAS) systems	MIL-H-19457 fluids (cellulube, FYRQUEL, Houghto-safe 1000 series); WARNING: Contains a neurotoxin (trl-ortho Grayyl- phosphate); vear protective clothing during handling. Warning does not apply to MIL-H-19457C fluids.	Hold for shore disposal; keep separate from petroleum hydraulio fluids
	Catapult retracting engines, jet blast deflectors, vespons elevators	MIL-H-22072 fluids (Houghto-safe); WARNING: Contains suspected cancer causing agents (nitrospainas); vear protective clothing dufing handling Warning does not apply to MIL-H-22013C fluids.	Hold \$pr shore diaposal; keep separate from petroleum hydraulic fluids
		find contains childethathd	Hold for shore disposal; keep

OPNAVINST 5100.19C 19 January 1994

Appendix B3-C

.

Missile holdown and lockout systems

MIL-S-81087 fluid contains chlorin phenyl methyl polysiloxane

separate from petroleum

	DISPOSAL OF SHI	p e ndiæ B3-C Pecard Hazardous Material. (comtieurd)	
Shipboard Basardous Material Type	Gemeration fource	Associated Rasardous Material	Authoriand, Disposal Mathods
Propellants	Torpedo overhaul	OTIO fuel II, substituted hydrasine	Containagles for shore disposal
Petroleum hydraulic fluids	Machinery, heavy lifts elevators, trucks	Fluids in accordance with MIL-H-17672, MIL-H-17331, MIL-F-17111, MIL-H-5606	Bold for ahore disposal; keep separate from synthetic hydrauli _e fluids
Spent acid	Cleaning	Acetic acid, citric acid, hydrochioriq acid, sulfuric acid, sulfamic acid	Carefully neutralize with a weak base, ditute and flush overboard using lagge amounts of water
Spent alkall	Cleaning, deoxidizing	Sodium hydroxide, potassium hydroxide	Carefully neutralize with a veak acid,dillyte and flush overboard using layge amounts of water
Metal plating, electro- plating solutions	Matal plating, electroplating operations, etching, activating operations	Acetic acid, formic acid, hydrochlorie acid, sulfuric acid, nitric acid, fluoroboric acid and phosphoric acid contaminated with lead, zinc, chromium, copper, and brass	Containegize for shore disposal
		Sodium hydrowide contaminated with lead, zinc, chromium, copper, and brass	Containerise for shore disposal
		Sodium cyanide contaminated with lead, zinc, chromium, copper, and brass	Containerise for shore disposal: keep separate from other plating solutions
Firefighting materials	Firefighting, testing of fire- fighting equipment	Frotein foam, AFFF (perfluorocarbon compounds mixed with polyoxyethylene compound)	Overboard discharge permitted beyond 12 nmi of shore, preferable while ship is underwayi in port and within 3 nmi of shore, discharge to tank, barge or truckei between 3 to 12 nmi overbgard discharge per- mitted with minimum 10-knot speed
Boller and boller water wastes	Boller blowdown, continuous boller water treatment tank	Trisodium phosphate, disodium phosphate, hydrazine, morpholine, sodium nitrate, EDIA	Overboarg digcharge of blowdown effluent, permitted, inside 12 nmi, continugus boller water treatment tank conjents must be disposed of ashore: pontainerize excess stock boiler vater treatment chemicals for shore discocat

and the second se

L i., 1/1 -.

Appendix B3-C

OPNAVINST 5100.19C 19 January 1994

	PISPOSAI, OF SHI DISPOSAI, OF SHI	pendia 83-C Board Harardous Material, Continued)	
Shipboard Basardous Material Type	Ceneration Bource	Associated Bazardous Material	Authorised Disposal Mathods
Boiler and boiler water wastes (continued)	Boiler water test chemicale	Mitric acid, EDTA, mercuric nitrate, potassium chloride, phenolphthalein	Containerise excess resents, and samplys putaining mercuric companied for shore disposal; if available, process service samples through on exchange cartridge overboard discharge of cartridge overboard discharge of cartridge effluent permitted; containerise exhausted cartridge for shore disposal
	Boller waterside cleaning solutions	EDTA, citric acid	Overboard discharge permitted beyond 50 mai of shore, in port, offload to donut, tank, barge, or truck ⁶
	Acid cleaning solutions	Hydrochloric acid, sulfamfa acid	In port, offload to tank, barge, or truck ^a
	Passivator solutions	Sodium nitrate, potassium nêfijate	In port, offload to tank, barge, or truck ^e
	Boilout solutions	Trisodium phosphate, sodium mutasilicate	In port, offload to tank, barge, or truck ^e
	Faedvater demineralizer	Ion exchange resin with adsorbed matal ions	Containerise for shore disposal as plastics solid vaste
Distilling plant cleaning vastes	On-line distilling plant chemical cleaning	Citric acid, trisodium phosphate	Overboard discharge permitted beyond 50 nmi of shore; in port, BOT USED IM PURT
Lead-acid battaries	Propulsion systems auxillary lighting, communication and power systems	Lead, lead sulfate, lead dloxide, antimony, sulfuric acid electrolyte	Conteinerise for shore disposal; dp ngs empty electrolyte from battyry
Alkaline batterles: Nickel-cadmium Silver-sinc Nickel-Iron Silver-cadmium Nickel-zinc	Auxiliary power systems, power supply for portable equipment	Nickel, sliver, zinc, ca¢mium, potassium hydroxide electrolyte	Conteinegise for ahore disposal; do not empty electrolyta from battery

*Contact local Public Works Center/Public Works Department for authorized procedures.

OPNAVINST 5100.19C 19 January 1994

Appendix B3-C

		Apr DISPOSAL, OF SHIF (C	endiz B3-C Board Haiardous Matrinia, Continued)		
	Shipboard Essardous Matarial Type	Generation Fource	Associated Resardous Naterial	Authorisad Disposal Mathods	
	Dry cell batterles: Lalanche cells Mercury cells Low-temperature cells	Pover supply for portable equipment	Manganese dioxide, mercuric oxidq, zinc	Containerize for shore disposal	
	Lithium batteries	Pover supply for portable equipment	Lithium, acetonitrile	Jettigon in deep water (over 100 fathoges) beyond 30 mmis in port, containegas for shore disposal	В)
	Battery water purification canisser	Cation exchanger, mixed bed exchanger	Ion exchange resin with adsorbed metal ions	Containeghue for shore disposal	
	Used/over-age OBA canisters	Demage control operations	Potassius superoxide, sodium chlorate	Jettiaon byyopd 23 nmi of shore; preferably while underway; con- tainerise for shore disposal if within 25 nmi of shore; contact with oil, grease, or water during storage is prohibited. Follow guidelines within NSTM chapter 079, Vol 2, Fractical Damage Control	
	Medical and dental lab chemicals and materials	Dental amaigam used as filling material, thermometers, mercury from broken thermometers	Silver, silver nitrate, mercuric nitrate, mercury	Containerise for shore disposal	
		Antiseptics, disinfectants	Isopropyl alcohol, hydrogen peroxide	Overboard discharge permitted beyond 12 mml of shore: in port, containerize for shore disposal	
	Materials containing asbestos	Thermal insulation, pipe lagging, flooring tile, safety curtains	Asbestos	Properly wet to prevent creating alrborne pargicles of dust, then containerize for shore disposal	OPNAV 19 Ja E
Apper	Materials containing man-made vitreous fibers	Thermal insulation, pipe lagging	Man-made vitreous fibers (MMVF)	Properly wet to prevent creating airborne particles of dust, then conteinesize for shore disposal	INST 5 nuary g
ndix B3	Fluorescent iight bulbs, other light bulbs containing mercury	Normal shipboard operations	Hercury	Retain for shore disposal	100.190 1994
- C	Insecticides, pesticides	Pest control operations	Diazinon, Baygon, Dyrethrin, Resmethrin. Dursban, Malathion	, Containerize for shore disposal	;

•

Ĩ

Í

•	5) 1111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 111 - 11	DURTINUED)	
bipboard asardous atariai Type	Generation Source	Associated Rasardous Material	Authorisad Disposal Methoda
Locide VANTOCIL IB [©]	Water from the MK 41 Vertical Launch deluge system	polyhexemethylene biguanide hydroghloride sodium hypochiorite	Overboard discharge permitted beyond 25 nmi of shore: in port and witthin 12 nmi, containerize for shore (sposal.
olor film processing waste	Continuous processor effluent, small quantities of processing liquids	Bydroquinone, sodium thiosulfake	Overboard discharge permitted beyond 12 mmi of shore; in port and within 12 mmi, containerise for shore disposal; do not discharge to CHT tank
	Excess film, batch quantities of developer, fixer and intensifier solutions	Hydroquinone, sodium thjûsujfste, cellulose acetate	Containarize for shora disposal
lack and white, X-ray iim processing waste	Continuous processor effluent, stop bath, photo-flo, detergents and hardener solutions	Acetic acid, potassium whrome alum, sulfuric acid	Overboard discharge permitted beyond 12 nmi of shore, within 12 nmi, containerise if facilities are available, in port, if ship has CBT system, discharge to CHT tank
	Excess film, batch quantities of developer and intensifier solution	Bydroquinone, ethanolamine, diethylene giycol, cellulose acetate	Containerise for shore disposal
	Fixer solutions .	Sodium thiosulfate, silver, halides	Containerise for shore disposal; if available, process fixer through silver recovery unit; overboard discharge of unit affluent permitted beyond 12 mmi of shore; in port, containerise unit affluent for offload
			F q- <u>submatines</u> : Containerize fight solutions for shore divrosgi at all times
Contaminated sorbenta; Inrecoverable personal protective clothing; unpurged BM containers	Mormal ship operations, spiil response operations	EM that must be contaignerized for shore disposal (find agecific contain- ment in this appendix \$0 leary if containerization is reguired)	Contatherize for shore disposal
		EM that may be discharged overhoard (find specific contaminant in this appendix to learn if overboard discharge is required)	Jettison beyond 25 nml of shore) discharged material must be negatively buoyant; containerise if within 25 miles of land

•

NAWINST 5100 19C ~

SUMMARY OF NAVY POLLUTION CONTROL DISCHARGE RESTRICTIONS (Continued) (Effective Until 31 December 1998)

TABLE 8

AREA	GARBAGE (NON-PLASTICS)	GARBAGE (PLASTICS) (NON-FOOD CONTAMINATED)	GARBAGE (PLASTICS) (FOOD-CONTAMINATED)
U.S. Internal Waters & Territorial Seas (0-3 nm)	No discharge.	No discharge.	No discharge.
U.S. Contiguous Zone (3-25 nm)	Pulped or comminuted garbage may be discharged. Submarines see note (4)	No discharge.	No discharge.
>25 nm	Direct discharge permitted.	No discharge.	No discharge.
> 50 nm & High Scas	Direct discharge permitted.	Retain last 20 days before return to port. Discharge if necessary.	Retain last 3 days before return to port. Discharge if necessary.
MARPOL "Special Areas" In Effect	Discharge food waste > 12 nm. Minimize all other garbage discharg- es. When necessary, discharge all other garbage > 25 nm. Report all non-food garbage dis- charges to CNO (N45) upon com- pletion of operations.	Retain last 20 days before return to port. Discharge if necessary >50 nm. Report all discharges to CNO (N45) upon completion of opera- tions.	Retain last 3 days before return to port. Discharge if nccessary >50 nm. Report all discharges to CNO (N45) upon completion of operations.
Foreign Countries	Discharge food waste >12 nm from foreign coasts. Diacharge all other garbage >23 nm.	No discharge.	No discharge
Comments	Garbage discharged should be pro- cessed to eliminate floating marine debris. Retain surplus material for shore disposal.	Record-keeping requirements exist for at-sea discharge. When plastics pro- cessor installed: No discharge.	Record-keeping requirements exist for at-sea discharge. When plastics pro- cessor installed: No discharge.

Submarines may discharge compacted, sinkable garbage between 12 nm and 25 nm, provided that the depth of the water is greater than 1,000 fathoms. Notes: (4)

1. N. 1. 1

i,

: ı, ;

-

-

OPNAVINST 5090.1B 1 November 1994

ABBA	(IRACITY O UTION I DECRIDENTING) HAZADDOIR MATERIAL S	MPDICAL WASTPS
Укел		(INFECTIOUS & SHARPS)
U.S. Internal Waters & Territorial Seas (0-3 nm)	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
 U.S. Contiguous Zone (3-12 nm)	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
 12-25 nm	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
 >25 nm	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
>50 nm & High Scas	No discharge. > 200 nm: See OPNAVINST 5100 19C, Appendix B3-C, for HM discharge guid- ance.	If health and safety are threatened, steam sterilize waste, package and weight for negative buoyancy, log, and discharge. No discharge of sharps permitted.
MARPOL "Special Arcas" In Effect	No discharge	Steam sterilize, store, and transfer ashore. No discharges. If >50 nm and health and safety are threatened, steam sterilize waste, package and weight for negative buoyancy, log, and discharge. No discharge of sharps permitted.
Foreign Countries	No discharge	The packaging, handling, storage, transport, treatment, and disposal of infectious waste shall be as prescribed by applicable visit clearance, SOPA regulations, and port guides
Comments		Dispose of all sharps ashore. Do not incincrate plastic, wet materials. Steam sterilization requirement not applicable to submarines. Other non- infectious waste may be disposed of as garbage and does not require steam sterilization.

OPNAVINST 5090.1B 1 November 1994

	("BLACK WATER")		
 ⁴ U.S. Internal Waters & Territorial Seas (0-3 nm) 	No discharge.	If equipped to collect graywater in CHT system, collect and pump to shore when pierside. If no collection capability exists, direct discharge permitted.	No sheen. If equipped with OCM, discharge <15 ppm oil. (1)
U.S. Contiguous Zone (3-12 nm)	Direct discharge permitted.	Direct discharge permitted.	No sheen. If equipped with OCM, discharge <15 ppm oil.(1)
12-25 nm	Direct discharge permitted.	Direct discharge permitted.	If equipped with OCM, discharge <15 ppm oil. Ships with OWS but no OCM must pro cess all machinery space bilge water through OWS. (2) (3)
>25 nm	Direct discharge permitted.	Direct discharge permitted.	Same as 12-25 nm. (2) (3)
>50 nm & High Seas	Direct discharge permitted.	Direct discharge permitted.	Same as 12-25 nm. (2) (3)
MARPOL "Special Areas" In Effect	Direct discharge permitted.	Direct discharge permitted.	Refrain from discharging any oil or oily waste to the extent practicable without en- dangering ship or impairing operations. Otherwise, same as 12-25 nm. (2) (3)
Foreign Countries	Within foreign territorial scas (12 nm), sce Visit Clearance or SOFA (as delineated in the Port Guide or LOGREQ reply). If sufficient guidance not available, no discharges within 3 nm when sewage reception facilities available. If not feasible, follow standards observed by host nation warships.	Within foreign territorial seas (12 nm), see Visit Clearance or SOFA (as delin- cated in the Port Guide or LOGREQ reply). If sufficient guidance not avail able, follow guidance above. If not feasible, follow standards observed by host nation warships.	Within foreign territorial scas (12 nm), sce Visit Clearance or SOFA (as delineated in the Port Guide or LOGREQ reply). If suffi- cient guidance not available, follow guidance above. If not feasible, follow atandards ob- served by host nation warships. (3)
Comments	Direct discharge allowed within 3 nm under emergency conditions.		State/local rules may vary; check SOPA regulations. Submarines: Direct oily waste to WOCT; when full and >50 nm, pump off bottom water phase.
Notes:			

;

OWS

Waste Oil Collecting Tank Senior Officer Present Afloat Oil-Water Separator Oil Content Monitor OCM WOCT SOPA

(1) If operating properly, OWS discharge will routinely be less than 15 ppm.

- - -

1 . * * *

permitted beyond 50 nm from nearest land. M and operating conditions prevent achieving less than 15 ppm, limit discharges to ust retain oily waste for shore disposal. If operating conditions require at-sea

ORGANIZATION AND TRAINING

The OPNAVINST 5100.19C outlines the HM Control & Management program for ships from the Commanding Officer down to all crew personnel. Responsibilities of Department heads. Division Officers, and the HMC is included. On board most ships, the Supply Officer is responsible for HM control and management. This makes sense, because he is responsible for the ordering of all stores and supplies. A HMC is assigned under the Supply Officer, and additional petty officers may be assigned to assist as necessary. In the case study, the HMC on the Destroyer was an OS1 who took over the job in Oct 1994 from the previous HMC, but did not receive any official training until Jun 1995. He attended the HM Control and Management course, see appendix D for course outline. Now the OS1 is aware of the "cradle-to-grave" responsibilities of managing HM. The OS1 is trained to use the basics of the HICS system, but no one else on board is. This is a collateral duty for the OS1. He has the boatswain mates that assist him with the paint lockers, but that is the extent of the HM organization on board the ship. The organization on board the Frigate is less organized, and there is only a slightly larger organization on the LHA despite the fact that there are over three times as many people on board. The HM Officer is the Material Division Officer. The HMC is an AO1 who actually runs the program on a day-to-day basis with 7 petty officers assisting him. The AO1 took over the position in November 1993. He did not have the official training, nor did the ship even have a HM program at this time. HMC is a full time job for the AO1, but the petty officers rotate out every six months or so. New personnel coming in to help with the program receive detailed OJT Training for (on-the-job-training) from learning HICS to understanding the publications.

all personnel includes safety standdowns twice a year. HM training is also part of PQS for Maintenance Man qualifications. This portion of their PQS must be signed off prior to handling HM. Every ship stated, though, that there was not enough specific training for all crew personnel, and that there should be an environmental rating established for the HMC position. As with most HM training, it appears to be too general. Individualized Department training is required to inform each department on how to use, store, and dispose of their specific HM. This is evident by problems with poor housekeeping habits, and personnel coming to HMC to check out HM for use, but come unprepared. They have been told by a supervisor to go get the HM. but the individual fails to get the proper protective clothing first. There is a lack of true understanding of the hazardous potential of these materials. Lack of training is also clear by the improper disposal procedures that have been followed. There also appears to be a lack of concern by several personnel in key positions on the ship. As previously stated, there is not enough emphasis being put on the HM program to make it an everyday way of life. Implementation of HICS and eventually CHRIMP will resolve a number of management issues, but does not cover good training that is necessary to make pollution prevention an everyday way of life. The HM Control & Management course is a very good training course, and should be attended by several personnel from the Engineering Department, Supply Department, and Operations Department instead of just the HMC. This awareness through training can help guide the rest of the ship. Be aware that support and commitment from the top down is still necessary for a successful program.

TECHNOLOGY

Federal, state, and international regulations with respect to waste management on board ships have increased restrictions dramatically over the past decade. These restrictions have ended routine overboard disposal of waste generated by Navy ships. Because of this and Navy's environmental responsibilities as a whole, numerous programs as discussed earlier have been developed. These programs, especially the R&D, have major research, development, test, and evaluation efforts underway to develop suitable shipboard waste processing systems. The waste streams being evaluated include oily wastes, non-oily wastewater, hazardous materials, and solid wastes.

The international community under MARPOL continues to designate special environmentally sensitive waters where overboard disposal of wastes is prohibited. This requires the Navy to find acceptable disposal locations, off-load in domestic waters, or off load at overseas ports. This results in increased storage of wastes on board ships and increased costs to dispose of them. Storage space on ships is limited to begin with, and storing large quantities of waste on ships creates a safety and health risk to the crew as well as reduces the crew's morale. Solid waste can be found lining ship passage ways, and in crew lounges designated for recreation and relaxing. These issues make the need for onboard waste processing systems even more critical.

In addition to space constraints and safety and health issues, other factors that enter into the equation in developing waste processing systems include its size and weight, its reliability and maintainability, sturdy structure to withstand shipboard movements, heat generation during operation, complexity to operate, electromagnetic compatibility with other shipboard equipment,

noise restrictions, potential shore-side support for offloading processed wastes, the ultimate disposal of the end products, and definitely not least is the cost of acquisition, operation, and maintenance. In developing "greener" equipment that keep the above factors in mind, it must also be remembered that it can take up to 20 years to design a ship platform for a ship that may be in operation for up towards 40 years; while regulations and federal laws change on a yearly basis. As can be seen, meeting the unique military requirements and constraints imposed by physical and operational responsibilities of a warship, the Navy is faced with the challenge of designing new ships that will accommodate the environmental needs of the future, and developing systems that can be installed in today's ships. The long term goal is to develop shipboard environmental protection systems that will enable the ship to function in an environmentally acceptable manner with minimal shoreside support. An environmentally sound ship. On the short end, the goal is to reduce waste generation by better managment, HM substitution, and retrofitting of ships with technology that is available today.

The following discusses technologies that are currently being studied for shipboard use. These systems are at different stages of the testing and evaluation of the development cycle, and several items are already successfully in use on board specific ships. As previously discussed, typical shipboard wastes include oily bilge and ballast water; blackwater from water-closets and urinals; graywater from laundries, scullery, lavatory, and showers; hazardous materials; solid wastes including food waste, paper, metal, glass, and plastics; and medical wastes. As with different wastes, there is different meanings when it comes to new technologies. For hazardous materials, new technology means HM minimization. This include reduction of HM use at the source by developing new cleaning compounds, solvents, lubricants, and adhesives that are

"greener", or deleting the HM from the maintenance process altogether. Where these technologies are not affective, methods of recycling and disposal are being sought in line with P2 policy.

HAZARDOUS MATERIAL MINIMIZATION

PD-680 Type II. PD-680 is a petroleum based dry cleaning and degreasing solvent used extensively on board ships. Over 5900 Maintenance Requirement Cards (MRC) require it for planned maintenance, corrective maintenance, incidental clean up, and facility maintenance. This adds up to over 80,000 gallons purchased per year. The main concern with this solvent is that it contains hazardous constituents and VOCs, and is therefore on EPA's list of hazardous chemicals. Use of this solvent requires ships to dedicate space for flammable liquid storage lockers for storage, and spent solvent must be stored until it can be off-loaded. A multidisciplinary task force was created to identify and evaluate alternative materials and process changes for PD-680 Type II. Depending on the MRC process, a number of options have been established. They include no cleaner use to perform some maintenance (rag or brush is sufficient), use a mild aqueous or semi-aqueous cleaning agent instead, use PD-680 type III, or just replace the part. Presently, the main recommendation is for all ships to use Type III whenever possible to minimize Type II use. PD-680 Type III has an increased flashpoint, lower aromatic content, and/ower vapor pressure that will reduce hazards to the personnel and to the environment. These efforts are progressing well. Coordination among several activities and groups also working on solvent substitution efforts is needed before any official guidance is put out on implementation of recommendations from the task force.

OIL/WATER SEPARATORS (OWS)

When fuels, lubricants, greases, oils, and hydraulic fluids mix with water in the bilge, an oily waste results. Typical concentrations of petroleum hydrocarbons in bilge water rarely exceeds 1000 to 2000 ppm; while regulations limit discharges to <15 ppm. The Navy has developed 10 gpm gravity, parallel-plate, OWS for bilge water treatment. The Navy model 10N and 10NP OWSs are installed on over 60% of the Navy ships. In addition, oil content monitors (OCM) are being installed to measure OWS effluent oil concentrations, and recycle the effluent if the monitor detects concentrations above the preset discharge limits. A future concern for oily waste is regulations may require the removal of trace contaminants from the effluent of OWSs. Though the Navy has not detected any trace contaminants from the bilge waste that could be classified as hazardous, technology for secondary bilge waste treatment is being evaluated. Current leading technologies include **ultrafiltration**, **electrocoagulation**, and **biological treatment**. Ultrafiltration is a promising technology in prototype stages that couples a membrane system to the 10NP OWS. It has demonstrated it is capable of separating water from emulsified oil and detergents, leaving effluent concentrations below 1ppm.

WASTEWATER MINIMIZATION AND TREATMENT

Non-oily wastewater includes blackwater and graywater. Non-oily wastewater is held onboard in collection, holding, and transfer (CHT) systems when ships are in transit, and is transferred to shore-side facilities for treatment when in port. Ships are allowed to discharge blackwater as permitted when beyond 3nm (see Regulation section), and graywater when in transit. The Navy is seeking technologies to minimize the volume of wastewater generated and

develop effective methods to treat the wastewater which remains. One example is a vacuum CHT system which generates only 10 percent of the blackwater of a traditional gravity-flush system. A computer program to design piping systems has been developed to broaden the application of vacuum CHT systems to new ship classes. Low water use appliances are also being evaluated for laundry and dishwashing. Low-flow showers are already in the fleet and do reduce the volume of wastewater dramatically. On the treatment end of this wastewater, technologies under consideration include vapor compression distillation, ultrafiltration, and supercritical water oxidation. Other areas are being considered to improve the existing CHT system. The failure-prone vacuum pumps are being replaced with sewage powered eductors, and installation of glass-reinforced plastic piping to last under the highly corrosive sewage CHT system environment, and improved vacuum flush water-closets and vacuum-gauge isolators have been developed.

PLASTICS WASTE PROCESSORS

Presently, a Navy ship generates 3 lbs of solid waste per person each day. Seven (7) percent of this is plastic. 01 Jan 1994 marked the regulatory deadline for the total ban of overboard disposal of plastics waste at sea. The Navy's policy to reduce plastics discharge at sea was to separate and store non-food contaminated plastics for the last 20 days prior to pulling into port, and the last 3 days if food contaminated. This 20/3 rule reduced plastics waste discharge by 70%. In dealing with the storage problems, the Navy developed **plastic waste processors** that sanitize and compact unsorted plastic wastes into stabilized blocks for storage. Waste volume reduction of 30 to 1 has been achieved. Plastic waste is first shredded by a solid waste

shredder and then placed in a compress melt unit (CMU). The CMU heats and compresses the plastic while excess liquid is evaporated. The result is a 20 inch diameter disk that weighs approximately 20 pounds. this is at a processing rate of 30 pounds per hour. A feasibility study is being conducted on the ability to recycle post-consumer shipboard plastic waste once off-loaded by shore-side facilities. Minimization of plastic packaging, and substitution of some non-plastic items has contributed to the reduction of plastics waste.

FOOD WASTE DISPOSERS

Navy models 3, 3S, and 5 **food waste disposers** have been installed in the fleet to help deal with the solid waste management problems. The American Delphi 75AD food waste disposal system is a self-contained and manually operated for size reduction of soft food wastes only. The waste is discharged in a waterborne slurry at a water rate of approximately 2.5 gal/min.

VERTICAL TRASH COMPACTORS

The vertical trash compactor is designed to compact non-food containing shipboard solid waste, including bottles, metal cans, cardboard, and paper into slugs suitable for storage until they can be transferred ashore for disposal or discharge. Other trash compactors developed include the Automated power systems model 4630 Trash Compactor. This is a horizontally configured trash compactor with a compaction chamber that produces slugs of trash 14 inches in diameter by using a ram face pressure of approximately 300 psi. This compactor is powered by a remote electrohydraulic unit. Auto-pak VC-W16H Trash Compactor is a vertically configured

trash compactor with height, width, and depth dimensions of 72x36x19 inches. It has a compaction container capacity of 2.5 ft^3. This model's hexagonal ram develops ram face compaction pressures of approximately 64 psi.

SOLID WASTE PULPER

The **solid waste pulper** has been designed to safely reduce shipboard galley wastes, paper wastes, cardboard and classified documents into a neutrally or negatively buoyant biodegradable homogenous slurry for environmentally acceptable discharge overboard. The pulper will process 500 lbs/hour. SOMAT Solid Waste Pulper (SWP). this system processes paper, cardboard, galley waste, and classified documents at rates of 500-1000 lb/hr. It produces a slurry that can be discharged at 3 nm from shore versus 25 nm for unpulped solid waste. The discharge of slurry can continue during flight operations. The SWP separates incidental nonpulpables. The unit features automatic control and a simplified interface for the operator. Combinations of pulpers and shredders do exist. The pulper installed on the USS George Washington was for mixed paper and food waste generating a 1 to 2% seawater slurry for overboard discharge at a rate of 680 pounds per hour. Their shredder was specifically for metal and glass that was processed into a sinkable form.

INCINERATORS

COPPUS SK25M3 INCINERATOR is a marine incinerator designed for on-board incineration of a ship's waste oils and solid refuse. The incinerator is capable of burning classified materials, Type II, and Type III waste. the heat values are 7500, 4300, and 2500 Btu/lb, respectively. the

incinerator is equipped with a water-cooled, revolving feed-in hatch or sluice which will permit safe operation by eliminating the possibility of "flare-back" or "backfire". The high temperature in the combustion chamber of 2200 to 2700 degrees F will allow smokeless and complete incineration. the combustion chamber is equipped with a specially constructed "tyro-flame" burner which is a low pressure "oil sludge" burner which also burns all grades of fuel oil. Though incinerators exist on several ships, and operate successfully, they are not considered environmentally "green" by the public because of the air emissions. They are being replaced by technologies such as the pulpers and shredders.

SOURCE MINIMIZATION

Source minimization is the primary focus of the Navy's hazardous waste management. The Navy is actively pursuing the elimination of non-essential hazardous materials and replacing them with non-hazardous substitutes. This has been successful in the area of lubricants, greases, and solvents. **Ion-exchange cartridges** have been introduced to minimize waste by treating mercuric chloride waste produced during the analysis of boiler water and feedwater. The ionexchange cartridge removes the mercury from the waste and produces an effluent suitable for overboard discharge at sea. It reduces the volume of mercury contaminated water by 1700 to 1. The mercury concentrated in the cartridges is reclaimed by a recycler, making disposal of the cartridge easier.

CFC ALTERNATIVES

Presently, there are no technologies in place as substitution for the 3 types of CFCs currently used by the Navy; CFC-11, CFC-12, and CFC-114. There are over 3,000 shipboard airconditioning and refrigeration plants that use these CFCs. In developing alternatives, they are finding the next best chemical tend to be the HCFCs which are to be banned in the next 20-40 years. The Navy, as a result, is trying to find a suitable replacement that will be acceptable for the life expectancies of ships currently being designed. In the mean time, technologies to eliminate atmospheric releases of CFC refrigerants and recycle them for reuse are being developed such as the Antifreeze Recycler. Portable recycling units have been used on shore for the last 4 or 5 years successfully, but they need to be modified to stand up to strenuous conditions of a ship. the basic unit removes all dissolved solids from the used antifreeze, and the old coolant is returned to pure ethylene glycol and deionized water. Additives are used to restore antifreeze to proper pH levels.

Another area for the Navy is the industry-standard Halons used for firefighting, and Halon 1301 for fire protection systems. The Navy's goal is to find Halon replacements, but for now is developing recovery/recycling technologies to conserve existing inventories and drastically reduce unintentional emissions of the chemicals.

The items discussed above are really just an interim measure until the Navy can develop a complete system to handle shipboard waste. Items like the shredder and pulpers are efficient waste processing devices, but they still produce a discharge. The Navy needs to be able to operate ships anywhere in the world without environmental constraints, but Congress directed in the Defense Authorization Act of 1994 (PL 103160) that the Navy fully comply with Annex V of

the MARPOL by 2000 for surface ships. As previously stated, annex V directs that no discharge of solid waste will be made into waters of the nine special areas. Combatant ships were not designed to be able to store solid waste for an extended period of time, and extensive studies of commercially available waste processing technologies show that size, weight, and cost of installation on combatants is too great. The Navy is developing a unique application of plasma arc pyrolysis that appears to be the only practical approach for resolving shipboard waste depending on who you talk to. Plasma arc pyrolysis technology provides a cost effective means for safe thermal destruction of solid and concentrated liquid shipboard waste.

The intent is to provide a centralized waste processing system on board a Combat Logistics Force (CLF) ship. The Navy combatants will transfer their waste to a CLF during underway replenishment while in a special area, and use the pulpers and shredders when outside the MARPOL areas. Plasma arc technology appears to be the most promising solution, because of its potential for greater reliability, higher temperatures, better temperature control, and greater capacity relative to standard incinerators. The pyrolysis process is described as an irreversible chemical change in the waste brought about by the effect of heat in an atmosphere devoid of oxygen. The products of this chemical reaction can be solid, liquid, or gas. In plasma arc pyrolysis, an electric are generating a high-energy plasma is used to decompose the waste. The temperature of the plasma when it contacts the waste is about 21,000 to 27,000 degrees F. As the plasma decays, it transfers its energy to the waste which is instantly atomized into its elemental constituents. These atoms then recombine into simple molecules that can be readily oxidized in a secondary burner or chamber. Inorganic residue that is not converted to a gas is collected as a molten pool in the bottom of the reaction chamber and is tapped off as necessary.

The process maximizes volume reduction of wastes up to 95% with only 5% of inorganic slag accumulation. Figure 5 outlines the shipboard integrated pollution abatement concept. Funding has been set aside through FY99 for the development and fabrication of a full-scale plasma arc system that will demonstrate destruction of waste while meeting all air emission regulations. Expected date for incorporation into the Navy is targeted for FY00-FY03 for prototype on board a CLF and FY06-FY10 for installation into the fleet. The Navy will utilize other technology in the interim to ensure compliance by 2000. This technology is very important. It will give the Navy access to all navigable waters of the world with a high degree of shore independence. The tethered logistics support of a shore-based infrastructure for waste disposal is not an option. Besides the benefits of independence, it can be seen that such technology would improve stealth characteristics, sanitation, personnel hygiene, safety, and cost savings would be realized. For more specifics on this technology and program development, the OPNAV N452 Program Sponsor can be contacted. Note that even though this technology appears promising, it and other programs like it may not survive upcoming budgets.


CONCLUSIONS

Some conclusions drawn from the programs, case study, and technologies are quite simple and clear. The Navy must take action to find solutions to environmental issues by the regulatory deadlines. But is this clear? What if during their Report to Congress, the Navy is given an extension to the solid waste prohibition deadline, or they modify the standard to be less stringent? The point is there are no simple or convincingly clear solutions to any of the Navv's pollution prevention problems. Even the barrage of problems that have paraded over the pages of this project time and time again are not clear. At one point, the P2 problems appear severe. and then you look at another ship that has it under control and is actually making headway with P2 efforts. The complexity of problems that exist change with the size and type of a ship. A small ship such as a Frigate does not have the space for the plastic processors, shredders, pulpers, etc...or the manpower to operate, and maintain additional equipment. But because they are small, the volume of waste generated is minimal compared to a Carrier. The Carrier has room for the additional equipment, but even with the processing equipment the amount of byproducts being produced that must be transferred is enormous. What is the overall solution to the discharges issue? Is an integrated system that will process all discharge type wastes the path to take? Is reinventing the ship design the answer? The Navy's approach to right sizing the Navy is consolidation. So why put individual systems on all these ships; dedicate a support ship just to waste management that would be part of a carrier battle group or smaller force.

From analyzing the case study and the problems that exist for the ships, there are various worthy programs that are working towards a comprehensive P2 program. For the near future, the

P2 Afloat program is closest to incorporating all areas of shipboard waste management. The implementation of HICS and eventually CHRIMP on board ships will reduce the use of HM. Add the HM substitutions, process modifications, and P2 equipment being developed by the P2 Afloat program to this, and ships should experience significant decreases in their HM, solid waste, and discharges. From the management practices witnessed in the case study, CHRIMP/HICS will make a big impact in reducing wastes, but it will be awareness, training, and leadership from the top down that will make this a successful program.

In trying to summarize the Navy's P2 efforts and the problems it faces, a listing of problems in a somewhat prioritized form follows; some problems are the view of higher management and others are from the working level:

- 1. The regulatory requirements change faster than the Navy can respond, but it will be the regulations that drive the funding for projects.
- 2. Not enough funding to do it all; R&D, studies, task forces, equipment, etc.. So even if a number of technologies are found to work successfully, the program supporters who lobby and obtain the backing will get the funding to implement their program.
- 3. There is no clear guidance and support from the top down. Numerous programs are going on simultaneously, making it very difficult to stay informed. At this time, even though everyone is aware of P2 issues, there is still not enough emphasis to push it to the point that it becomes an everyday way of life for the ships.
- 4. The lack of commitment by everyone. Just like TQL; all or nothing.
- Missions are being impacted because of regulations, and ships are underway for longer periods of time when they are out.

6. The lack of training and awareness makes it difficult to manage wastes.
 7. There is not enough space, especially on the small ships for P2 equipment.
 8. The safety, health, and morale of personnel is at risk due to the pollution.
 9. Current Technologies are hard to adapt for ships, and not all do a good job.
 10. Not enough manpower to operate and maintain additional equipment.
 11. No standardization of disposal procedures from port to port.

The list goes on depending on your point of view. Even with all these problems, the forces afloat are currently in compliance with present regulations (except HM management problems). And with the help of the P2 Afloat Program and the design programs for future ships, the Navy is making headway towards reaching compliance with future regulations.

One thing is for certain. For the near term until the Navy does develop a comprehensive P2 program, P2 efforts will be most successful on ships that seriously want to participate in the P2 program; who take the initiative and develop some type of control and management that works for them, and gets involved at the TYCOM level to obtain existing P2 funds and support from the CINCs. They will need to find inexpensive and easy to implement changes until major changes are mandated Navywide, and must make P2 efforts part of their everyday lives on board the ship.

BIBLIOGRAPHY

- Naval Surface Warfare Center Carderock Division, Ships Materials Engineering Department. <u>Catalog of Shipboard Pollution Abatement Systems</u>. By Sheila B. Riggs. CARDIVNSWC/ SME-92/49 Bethesda, Maryland. July 1993
- <u>The Navy's Shipboard Waste Management Research & Development Program</u>. By Arthur Smookler & Craig Alig. Naval Engineers Journal, May 1992.
- Carderock Divison NSWC; <u>Plasma-arc Pyrolysis of shipboard soild waste</u>. By Craig Alig. 01 Mar 1995.
- OPNAV N452. <u>Plasma arc Pyrolysis of shipboard waste</u>. By Mr. Larry Koss. 10 March 1995.
- 5. The Ships and Aircraft of the U.S. Fleet. 14th edition. By Norman Polmar. Naval Institute Press. Annapolis, Maryland.
- OPNAVINST 5090.1B. <u>Environmental and Natural Resources Program Manual</u>. 01 November 1994.
- S9086-T8-STM-010. <u>Naval Ship's Technical Manual</u>. Chapter 593, Pollution Control. 2nd revision. 15 April 1989.
- OPNAVINST 5100.19C. <u>Occupational Safety and Health (NAVOSH) Program Manual For</u> Forces Afloat. 19 January 1994.
- William and mary environmental Law and Policy Review. <u>Regulation of Navy ship</u> <u>Discharges Under the Clean Water Act: Have too Many Chefs Spoiled the Broth?</u> By Daniel E. O'Toole. Volume 19/Number 1. Fall 1994.

- Pollution Prevention. By Louis Theodore and Young C. McGuinn. Van Nostrand Reinhold, New York, 1992.
- Navy Ships Parts Control Center. <u>Ships Hazardous Materials List</u>. Mechanicsburg, Pa. October 1990.
- Better Engineering, Inc. GSA contract #GS07F-5778A. Maintenance & Repair Shop Equipment/cleaning Systems.
- 13. USS George Washington. HICS User's Catalog. July 1995.
- Carderock Division, Naval Surface Warfare Center. <u>Pollution prevention afloat reduction of</u> <u>P-D-680 Type II in Planned Maintence System</u>. By Naval Sea Systems Command. August 1994.
- Shipboard Solid Waste Equipment Successfully Evaluated by Carderock Personnel. By William Upton and Elizabeth Rose. On The Surface. April 1995.
- Navy P2 Afloat Program. Interview with Program Manager, Dave Asiello (N45). July 1995.
- NAVSEA 03V. <u>Development of an Environmental GENSPEC: An Environmental</u> Initiative by the Ship Design Standards PAT. By RADM Schriefer. 19 June 1995.
- <u>Consolidated Hazardous Material Reutilization and Inventory Management Program</u> (<u>CHRIMP</u>). CHRIMP Manual. 1994.
- 19. Navy Times. Ships at Sea. 03 July 1995.
- Center for Naval Analyses. <u>Ship Solid Waste Study Interim Results</u>. By Paul Speer.
 17 February 1995.

APPENDIX A

HAZARDOUS	INVENTORY CONTROL SYSTEM	
	Re-Order List	

	0 • • • • • • •		N. L. D. Black Number	Namanaladura	Military	Qty On Hond	Lon	High	11/7	U/I
	Part Hudder	C06	Hat I Stock Hubbar	NODenclature	20ac111car100	UN Hang	LINIC	LIULL	0/1	PK166
				<u></u>	88888888888888888888888888888888888888	*****	04004	A \$ 8 0 0 0		*******
	9397		5970-00-233-6239	INSULATE FLECTRIC CORPOUN	30648	0	4	7		0.00
	1620		5970-00-962-3335	SCOTCH KOTE		3	5	9	CN	4.00
	2416		6505-00-133-6000	MINERAL OIL		0	2	4		0.00
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<b>3</b> 1 4 W		6505-00-753-4773	DEODORIZER		0	2	5		0.00
834	0367		6505-00-994-7224	T-SCRUB IODINE		0	4	6		0.00
0	0698		6505-55-261-7256	ALCOHOL. ISOPROYL	37443	0	2	4		0.00
<b>x</b> D	0006		6810-00-184-4796	ACETONE		0	1	2		0.00
4010)	3744		6810-00-241-1203	CUPRIC SULATE	265	0	2	5	L8	0.00
	1297		6810-00-264-6618	SODIUM BICARBONATE	576	0	3	5	LB	0.00
-	0256		6810-00-281-2014	CITRIC ACID HONO	2658	0	3	5		0.00
V	0038		6810-00-543-7415	ALCOHOL, DENATURED	760	0	5	10	GAL	0.00
V	0887		6810-00-597-3608	METHANOL	0-A-2326	0	4	8	GL	0.00
V	3533		6810-00-687-8429	HETHYL KEYTONE TECH	740-84	0	3	6		0.00
555 .			6830-LL-H23-7533	PROPANE, CYLINDERS		4	5	8		0.00
1 second	1580	9G	6850-00-005-5305	AIRCRAFT CLEANING COMP AE	HIL-C-43616C	2	24	6	DZ	48.00
			<del>6858-88</del> -066-2333	CORROSION PREVENTION CHPD	14098	0	1	1		0.00
	2283	9G	6850-00-110-4498	DRY CLEANING SOLVENT TYPE	PD680	0	5	10	PT	1.50
1. Same	3867		6850-00-148-7161	AVIONICS CLEANER		0	4	8	CN	0.00
V			6850-00-181-7594	CLEANING, CHPD ENGINE	857048	2	5	9	gal	0.00
	3638		6850-00-188-9875	CLEANER, OPTIC LENS	43454	0	3	6	81	0.00
	0282		6850-00-224-6657	RIFLE CLEANING COMPOUND	372	0	5	10		0.00
V	0280		6850-00-392-9751	CLEANING COMPOUND	43454	0	1	1		0.00
Vare .	1761		6850-00-405-9385	FREEZING COMPOUND		0	3	Ę		0.00
	1255		6850-00-664-4959	SILICONE COMPOUND	21567	0	4	5	GAL	14.00
~ )	1258		6850-00-702-4297	SILICONE COMPOUND	21567	0	4	9	TU	4.00
	1259		6850-00-880-7616	SILICONE COMPOUND	8660 DC-6	2	4	9	TU	4.00
-	254		6850-00-963-5402	SILICONE COMPOUND	21567	0	6	9	TU	4.00
V (	284		6850-00-965-2359	CLEANING COMPOUND	22230	0	1	1		0.00
- (	1979		6850-00-973-9091	PEHETRATING FLUID	216	0	4	1	CH	3.00
Val	.580		6850-01-045-7929	CLEAN, AIRCRAFT COMPOUND	43616	2	5	8	GAL	32.00
V (	697		6850-01-277-0595	COHPOUND, CLEANING	134 HI-SOLV	0	4	6	GAL	0.00
~ 3	570		7930-01-323-2005	NAX AIRCRAFT	1600	0	3	6		0.00
- 1	591		8030-00-081-9022	SEALING COMPOUND	22473-8	0	3	5		0.00
	054		8030-00-087-8630	ANTISIEZE, HOLY B	83483	0	3	9		0.00
VI	227		8030-00-209-8005	SEALING COMPOUND	\$1732	0	5	10	pr	3.00
VO	318	90	8030-00-244-1297	CORROSION PREVENTION COMP	HIL-C-16173D	2	4	8	GL	12.40
VI	232		8030-00-252-3391	SEALING COMPOUND	45180	0	6	9	10	4.00
F	312	5	8030 00 272 5886	CORROSION PREVENTION	18487	1	2	4	GL	25.00
N	312		8030-00-272-8530	CORROSION PREVENTION CHPD	18487	0	2	4		0.00
<b>V</b> 0	059		8030-00-286-5453	ANTISIEZE, COMPOUND	907D/E	0	2	5		0.00
()	055		8030-00-292-1102	ANTISIEZE, COMPOUND	22361	0	8	20		0.00
1	234		8030-00-656-1426	SEALING COMPOUND	45180 TY3	0	5	9	P1	5.00
- 0	331		8030-00-823-8039	CORROSION, RESISTANT	81706	0	1	1		0.00
≈ ∕			8030-00-965-2004	SEALING COMPOUND	8802F	0	4	6		0.00
	561		8030-01-041-1609	PLASTISOL COMPOUND	20689-0	0	2	5		U.00
V 0	V28		8030-01-044-5034	ANTISIELE, COMPOUND	22448	0	3	5		0.00
~ 0	041		6030-01-163-3483	SEALING, COMPOUND		0	Z	5		0.00
- 0 -	V02		8030-01-275-5050	ANTISEIZE DOO		0	4	8		V.VV
VO	0.50		8040-00-144-9774	KIV/6HT	46146	0	5	/		0.00
V ()	030		8040-00-145-0020	n i a / Gra	46146	0	5	1		0.00

Page:

1

J,

No.

ľ

HI0604 05/17/95

#### HAZARDOUS INVENTORY CONTROL SYSTEM Re-Order List

					Military	₽ty	LOW	High		U/I
	Part Number	C06	Nat'l Stock Number	Nomenclature	Specification	On Hand	Limit	Limit	U/I	PRICE
		:::					:::::	:::::		
	(na17	00	9040-00-262-0071	ADVECTVE DUDDED DAGE CEN	MMM-A-14178		2	R	ΩT	5 50
	0033	78	8040-00-262-9031	ADVESTIC RUDDER DHOE GEN	NUU-H-101/0	0	2	ט ז	<b>H</b> 1	0.00
V	0042		8040-00-313-2240	NUMESIAE, PULICALURU	1417-8	0	1	2	DT	0.00
鰴	· 2294		8040-00-664-4318	RUBBER LERENI	101/-H	V 0	1 5	7	r i	0.00
	² 0029		8040-00-843-0802		40100D	0	J	7		0.00
	0029		8040-00-865-8991		401000	7	J E	0		0.00
. /			8040-01-023-4173	ADHESIVE, SCUTCHGRIP	05017	ى م	2	0		0.00
	0556		9150-00-141-6770	GREASE, BEARING AND RULLE	25013	v	2	3		0.00
	0542		9150-00-145-0268	GREASE, AIRCRAFT	81322	U	5	0		0.00
	0801		9150-00-223-4116	OIL, LUBE GEAR	6086	U	3	5		0.00
- da '	0661		9150-00-223-4134	FLUID, HYDRALIC	5606 RED	0	2	4		0.00
	0831		9150-00-231-6689	LUBE OIL	800C	1	5	5	<b>Q</b> I	3.00
e.	0817		9150-00-231-9045	OIL, LUBE	820	0	2	3		0.00
	0808		9150-00-240-2235	LUBE OIL. GEAR	6086	1	2	4	PT	0.00
	0982		9150-00-250-0933	PETROLATUM TECH	236A	0	4	7	GAL	5.00
	0980		9150-00-261-7899	PENETRATING OIL	2394	0	4	7	PT	5.00
V	,0670		9150-00-261-8317	FLUID, HYDRALIC	17111	0	3	6		0.00
麣	0819		9150-00-263-3490	OIL, LUBE	0823	0	2	3		0.00
臔			9150-00-265-9417	LUBE OIL, GEAR	60860	2	3	5	GAL	0.00
e,	9546		9150-00-269-8255	GREASE, AIRCRAFT	4343-C	0	3	5		0.00
	0823		9150-00-271-8427	OIL, LUBE	3150	0	2	3		0.00
	3019		9150-00-292-9697	LUBE OIL, REFRIG	825A	5	6	12	GL	4.00
<b>R</b> /			9150-00-419-0628	GREASE, A/C RADAR 1	2995088	0	2	5		0.00
V	1012		9150-00-448-5009	LUBE OIL, INSTRUMENT	7470	0	3	7		Q.00
	0585		9150-00-530-6814	GREASE, WIRE ROPE	18458	1	3	2		58.00
	0841		9150-00-543-7220	LUBE OIL, MOLY BEN	25681	3	5	7	CN	9.00
	3019		9150-00-598-2911	LUBE OIL, REFRIG RCO-2	825-A	28	40	48	QT	0.00
ا سقد	2266		9150-00-663-1770	GREASE, GENERAL PURPOSE	630AA	0	3	5		0.00
	0779		9150-00-753-4799	HYDRALIC FLUID PETRO INHI	17672	0	2	8	GL	13.77
	1749		9150-00-823-7860	SILICONE LUBE COMPOUND	7237	0	3	5	CN	0.00
V	0542	9G	9150-00-935-5851	AIRCRAFT GREASE	MIL-G-81322D	7	20	70	CN	75.00
齫	0575		9150-00-965-2003	GREASE, MOLY B	21164	0	3	5		0.00
	0828		9150-00-985-7237	FLUID, HYDRALIC	2075	0	3	7		0.00
••••• √	0549		9150-00-985-7247	GREASE, AIRCRAFT	23827	0	3	5		0.00
dauge (	1598		9150-01-035-5392	LUBE OIL, GEAR	2105	19	20	36	QT	2.11
	1598		9150-01-035-5393	LUBE OIL, GEAR	60 80/90	0	5	8	GAL	30.00
	2057		9150-01-053-6688	CLEANER/LUBE/PRESERVER	636400	19	20	0	GAL	0.00
1	2367	9G	9150-01-080-5961	HYDRAULIC FLUID CATAPULT	MIL-H-22072C	3	5	10	QT	4.00
	1106		9150-01-231-8732	LUBE, OIL	77988	0	3	6	GL	0.00
			9150-01-256-6433	HYDRALIC FLUID. CHERRY		2	8	16	GAL	0.00
4004 2006	0080		9150-01-318-6008	LUBE OIL. THO CYCLE ENINE		8	12	24	QT	3.32
1	0691		9160-00-685-0913	INSULATE, OIL ELECTRIC	3487-82A	0	2	3		0.00
	-					-	-	-		-

Page: 2

## HAZARDOUS INVENTORV- CONTROL SYSTEM Haster List - Part Number Sequence , All Items

é

12

2 C

H F R Par	t Huober		Nat'l Stock Number	Nongenclature	Military Spec.	Price Per I/S	Oty On Hand	V/P	U/I
Location	C/A Oty	<b>Lo</b> 0	High Weight I/S	Volude I/S VOC Redarks				6060 60060 60060	
6	0	1	5350-00-193-1348 1 0.00	LAPPING CHPD & GRINDING 0.00 0		0.00	1	0	
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0	1	<b>5970-00-295-9298</b> 2 0.00	INSULATING COMPOUND, ELECTRIC 0.00 0	30648	0.00	1	0	CH
000000000000000000000000000000000000000	0	2	6505-00-753-4773 5 0.00	DEODORIZER 0.00 0		0.00	0	0	
	0	0	6810-00-753-4703 0 0.00	NETHANOL 0.00 0	.000608008855555	0.00	0	0	
	0	5	6830-LL-H23-7533 8 0.00	PROPANE, CYLINDERS 0.00 0		0.00	4	0	
	0	1	6850-00-066-2333 1 0.00	CORROSION PREVENTION CHPD 0.00 0	14098	0.00	0	0	~~~~~~
35	0	5	6850-00-181-7594 9 0.00	CLEANING, CHPD ENGINE 0.00 0	857048	0.00	8	0	GAL
	0	1	6850-00-333-3609 3 0.00	CLEANING COHPOUND, CONTACT 0.00 0		0.00	1	0	
4	0	1	6850-00-621-1820 8 0.00	LEAK DETECTION COHPOUND 0.00 0	25567	0.00	7	0	Øĭ
FF	0	1	6850-00-927-9461 2 0.00	SILICONE COMPOUND 0.00 0	471138	0.00	1	0	TU
7	1	1	8030-00-246-0932 1 0.00	SEALING COHPOUND, JOINT THREAD 0.00 0	152040	0.00	2	0	CN
5	0	1	8030-00-811-3723 1 0.00	CORROSION RESISTANT CHPD 0.00 0		0.00	1	0	****
2	0	1	8030-00-965-2004 30.00	SEALING CONPOUND 0.00 0	8802F	0.00	1	0	
5	0	1	8030-01-103-2868 9 0.00	SEALING COHPOUND 0.00 0	5	0.00	9	0	CH
A	44	0	8040-00-145-0153 0 2.00 LB	ADHESIVE 0.96 QT 0	HIL-A-24179	9.00	44	0	PT
	0	5	8040-01-023-4173 8 0.00	ADHESIVE, SCOTCHGRIP 0.00 0		0.00	3	0	

HI0601-1 06/20/95

# HAZARDOUS INVENTORY CONTROL SYSTEM Master List - Part Number Sequence, All Items

Page: 2 *

é

H F R ====== Location	Part =====	Nusber  C/A Qty	LON	Nat'l ===== High	Stock Number =========== Weight I/S	Nomencla ======= Volume ]	ature ====== I/S	VOC	 Remarks	Military Spec.	Price Per I/S	Qty On Hand ======	V/P ====	U/I
32		0	3	9150-0 5	0-265-9417 0.00	LUBE OIL 0.00	., GEA	iR 0		60860	0.00	2	 0	GAL
		0	2	9150-0( 5	)-419-0628 0.00	GREASE, 0.00	A/C R	ADAR 0	1	2995088	0.00	0	0	
6		0	1	9150-0( 1	)-754-2595 0.00	GREASE, 0.00	MOLY	8	****	21146D	0.00	]	0	******
	*****	0	8	9150-01 16	-256-6433 0.00	HYDRALIC 0.00	FLUI	D, CHE O	ERRY		0.00	2	0	GAL
25	0006	0	1	6810-00 2	-184-4796 0.00	ACETONE 0.00		0			0.00	3	0	
A	0019	0	8	8040-00 20	-273-8707 1.00 LB	ADHESIVE 0.48	FIRE QT	RESIS	TANT	WIL-A-3316	5.00	20	0	QT
5	0029	0	5	8040-00 12	-225-4548 1.00	RTV/WHT 1.00		0		46106B	5.00	12	0	TU
	0029	0	5	8040-00 7	-843-0802 0.00	RTV/RED 0.00		0		461068	0.00	0	0	***
(	029	0	5	<b>804</b> 0-00 7	-865-8991 0.00	RTV/BLK 0.00		0		46106B	0.00	0	0	<b>~~~</b>
0	030	0	5	8040-00 7	-144-9774 0.00	RTV/GRY 0.00		0		46146	0.00	0	0	****
0	030	0	5	8040-00 [.] 7	-145-0020 0.00	RTV/GRA 0.00		0		46146	0.00	0	0	
0	033	1	2	8040-00- 8	262-9031 2.00 LB	ADHESIVE 0.96 Q	RUBBE IT	R BASI O	E GEN PURPO	MNM-A-16178	5.50	1	0	QT
0	038	10	15	5810-00- 30	201-0907 2.00 LB	ALCOHOL, 0.96 Q	DENAT	URED O		0-E-760	22.00	30	0	CN
0	038	0	5	810-00- 10	543-7415 0.00	ALCOHOL, 0.00	DENATI	URED O		760	0.00	0	0	GAL
0	)41	0	8	1030-01-	163-3483 0.00	SEALING, 0.00	COMPO	UND O			0.00	0	0	· • • • • • • • •
0	042	0	8	1040-00- 3	515-2246 0.00	ADHESIVE, 0.00	POLY	CHLORO O		5540B	0.00	0	0	
	H       F       R         Location       32         32	H       F       R       Part         Location       1         32       32         6       0006         25       0019         A       0029         0029       0029         0029       0029         0030       0030         0030       0033         0038       0038         0041       0042	H       F       R       Part       Number         Location       C/A       Qty         32       0         32       0         6       0         6       0         0006       0         25       0         0029       0         0029       0         0029       0         0030       0         0030       0         0033       1         0038       0         0041       0         0042       0	H       F       R       Part Number         Location       C/A       Qty       Low         32       0       3         32       0       3         0       2         6       0       1         0       8         0006       1         0       8         0006       1         0       8         00029       0         5       0         0029       5         0029       5         0029       5         0030       5         0030       5         0030       5         0030       5         0030       5         0030       5         0033       1         2       0038         10       15         0041       2         0042       2	H       F       R       Part Number       Nat'l         Location       C/A Qty       Low       High         Location       C/A Qty       Low       High         1       9150-00       0       2       5         32       0       3       5       9150-00         0       2       5       9150-00       6         0       2       5       9150-00       6         0       0       1       1       1         9150-00       0       2       5       7         0006       6810-00       6810-00       6       6810-00         25       0       1       2       7         0019       8040-00       8       20       8040-00         0       8       20       8040-00       6         0       5       7       7       0029       8040-00         0       5       7       7       0030       8040-00-00         0       5       7       7       0033       8040-00-00         0       5       7       0033       8040-00-00         0       5       7       0033 <td>H       F       R       Part Number       Hat'l Stock Humber         Location       C/A Qty       Low       High Meight I/S         32       0       3       5       0.00         9150-00-265-9417       32       0       3       5       0.00         9150-00-419-0628       0       2       5       0.00         9150-00-754-2595       0       1       1       0.00         0       8       16       0.00         0       8       16       0.00         0       8       16       0.00         0       8       10       1       0.00         0       8       10       12       0.00         0       0       1       2       0.00         0       8       0       5       12       1.00         0       12       1.00       10       15       10       10         0       0       5       7       0.00       10       10       15         0       5       7       0.00       10       10       15       10       10         0       5       7       0.00</td> <td>H         F         Part         Number         Nat'l         Stock         Number         Nomencl.           Location         C/A         Qty         Low         High         Meight I/S         Yolume           32         0         3         5         0.00         0.00           32         0         3         5         0.00         0.00           9150-00-265-9417         LUBE OII         GREASE,         0.00         0.00           0         2         5         0.00         0.00           0         2         5         0.00         0.00           0         8         16         0.00         0.00           0         8         20         1.00         0.00           0         8         20         1.00         1.00           0         8         20         1.00         1.00           0         5         7         0.00         0.00           0029         8040-00-273-8707         ADHESIVE         A           0         5         7         0.00         0.00           0029         8040-00-843-0802         RIV/RED         0.48           0</td> <td>H         F         Part Number         Nat'l Stock Number         Nomenclature           Location         C/A Qty         Low         High Meight I/S         Volume I/S           32         0         3         5         0.00         0.00           32         0         3         5         0.00         0.00           9150-00-419-0628         GREASE, A/C R         0.00         0.00           6         0         1         1         0.00         0.00           6         0         1         1         0.00         0.00           0         8         16         0.00         0.00           0         8         16         0.00         0.00           0         8         20         1.00 LB         0.48 qT           0         8         20         1.00 LB         0.48 qT           0         5         7         0.00         0.00           0029         8040-00-225-4548         RTV/WHT           0         5         7         0.00         0.00           0029         8040-00-145-0802         RTV/RED         0.00           0029         8040-00-145-0920         RTV/REK</td> <td>H         F         Part Number         Mat'l Stock Number         Momenclature           Location         C/A Qty         Low         High Meight I/S         Volume I/S         Volume I/S           32         0         3         5         0.00         0.00         0           9150-00-754-2595         GREASE, A/C RADAR         0         2         5         0.00         0           6         0         1         1         0.00         0         0         0           9150-01-256-6433         MYDRALIC FLUID, CHE         0         8         16         0.00         0           0         1         2         0.00         0.00         0         0         0           0         8         16         0.00         0.00         0         0         0           0         8         20         1.00         LB         0.48 QT         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00         0.00         0         0</td> <td>H         F         R         Part Number         Nat'l Stock Number         Nomenclature           Location         C/A Qty         Low         High         Meight I/S         Volume I/S         VOL Remarks           32         0         3         5         0.00         0         0           32         0         3         5         0.00         0         0           32         0         3         5         0.00         0         0           9150-00-754-2595         GREASE, A/C RADAR 1         0         0         0         0           6         0         1         0.00         0         0         0           0         8         16         0.00         0         0         0           0         8         16         0.00         0         0         0           0         8         20         1.00         1.0         0         0           0         8         20         1.00         1.0         0         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00</td> <td>H         F         R         Part Humber         Hat'l Stock Humber         Homenclature         Hillitary Spec.           Location         C/A GLY         Low         High Weight I/S         Volume I/S         Volc Remarks           32         0         3         5         0.00         0         60060           32         0         3         5         0.00         0         60060           9150-00-265-9417         LUBE DIL, GEAR         60060         60060         60060           0         2         5         0.00         0         295508B           0         2         5         0.00         0         295508B           0         1         0.00         0.00         0         21146D           0         8         16         0.00         0.00         0         21146D           0         8         16         0.00         0.00         0         21146D           0         8         20         1.00         18         NTDRALIC FLUID, CHERRY         21146D           0         8         20         1.00         0         0         0         0           0         5         12</td> <td>H         F         R         Price         Price           Location         C/A 40 y         Low         High Meight 1/S         Volume 1/S         VOL Resarks         Military Spec.         Per 1/S           22         0         3         5         0.00         0.00         0         0.00         0           32         0         3         5         0.00         0.00         0         0         0.00         0           32         0         3         5         0.00         0.00         0         0         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0         0         0         0         0         0         0.00         0         0.00         0.00         0         0.00         0.00         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0         0         0         0         0         0         0         0</td> <td>H         F         R         Part Number         Hat'l Stock Humber         Momenclature         Military Spec.         Per I/S         O           Lecation         C/A 01y         Low         Migh         Meight I/S         Valume 1/S         VOC         Remarks           J2         0         3         5         0.00         0.60         0         2           J2         0         3         5         0.00         0.60         0         0         2           J2         0         3         5         0.00         0.60         0         0         2           J150-01-255-433         SEARSE, A/C RADAR 1         2955080         0.00         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         <t< td=""><td>H         F         Part         Nat'l         Stoch         Number         Mat'l         Stoch         Number         Military Spec.         Per I/S         Diment         V//           Lacation         C/A GIY         Low         High Neight I/S         Yoluwe I/S         YOL         Resarts         Notene I/S         YOL         YOL         YOL         YOL</td></t<></td>	H       F       R       Part Number       Hat'l Stock Humber         Location       C/A Qty       Low       High Meight I/S         32       0       3       5       0.00         9150-00-265-9417       32       0       3       5       0.00         9150-00-419-0628       0       2       5       0.00         9150-00-754-2595       0       1       1       0.00         0       8       16       0.00         0       8       16       0.00         0       8       16       0.00         0       8       10       1       0.00         0       8       10       12       0.00         0       0       1       2       0.00         0       8       0       5       12       1.00         0       12       1.00       10       15       10       10         0       0       5       7       0.00       10       10       15         0       5       7       0.00       10       10       15       10       10         0       5       7       0.00	H         F         Part         Number         Nat'l         Stock         Number         Nomencl.           Location         C/A         Qty         Low         High         Meight I/S         Yolume           32         0         3         5         0.00         0.00           32         0         3         5         0.00         0.00           9150-00-265-9417         LUBE OII         GREASE,         0.00         0.00           0         2         5         0.00         0.00           0         2         5         0.00         0.00           0         8         16         0.00         0.00           0         8         20         1.00         0.00           0         8         20         1.00         1.00           0         8         20         1.00         1.00           0         5         7         0.00         0.00           0029         8040-00-273-8707         ADHESIVE         A           0         5         7         0.00         0.00           0029         8040-00-843-0802         RIV/RED         0.48           0	H         F         Part Number         Nat'l Stock Number         Nomenclature           Location         C/A Qty         Low         High Meight I/S         Volume I/S           32         0         3         5         0.00         0.00           32         0         3         5         0.00         0.00           9150-00-419-0628         GREASE, A/C R         0.00         0.00           6         0         1         1         0.00         0.00           6         0         1         1         0.00         0.00           0         8         16         0.00         0.00           0         8         16         0.00         0.00           0         8         20         1.00 LB         0.48 qT           0         8         20         1.00 LB         0.48 qT           0         5         7         0.00         0.00           0029         8040-00-225-4548         RTV/WHT           0         5         7         0.00         0.00           0029         8040-00-145-0802         RTV/RED         0.00           0029         8040-00-145-0920         RTV/REK	H         F         Part Number         Mat'l Stock Number         Momenclature           Location         C/A Qty         Low         High Meight I/S         Volume I/S         Volume I/S           32         0         3         5         0.00         0.00         0           9150-00-754-2595         GREASE, A/C RADAR         0         2         5         0.00         0           6         0         1         1         0.00         0         0         0           9150-01-256-6433         MYDRALIC FLUID, CHE         0         8         16         0.00         0           0         1         2         0.00         0.00         0         0         0           0         8         16         0.00         0.00         0         0         0           0         8         20         1.00         LB         0.48 QT         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00         0.00         0         0	H         F         R         Part Number         Nat'l Stock Number         Nomenclature           Location         C/A Qty         Low         High         Meight I/S         Volume I/S         VOL Remarks           32         0         3         5         0.00         0         0           32         0         3         5         0.00         0         0           32         0         3         5         0.00         0         0           9150-00-754-2595         GREASE, A/C RADAR 1         0         0         0         0           6         0         1         0.00         0         0         0           0         8         16         0.00         0         0         0           0         8         16         0.00         0         0         0           0         8         20         1.00         1.0         0         0           0         8         20         1.00         1.0         0         0           0         5         7         0.00         0.00         0         0           0         5         7         0.00	H         F         R         Part Humber         Hat'l Stock Humber         Homenclature         Hillitary Spec.           Location         C/A GLY         Low         High Weight I/S         Volume I/S         Volc Remarks           32         0         3         5         0.00         0         60060           32         0         3         5         0.00         0         60060           9150-00-265-9417         LUBE DIL, GEAR         60060         60060         60060           0         2         5         0.00         0         295508B           0         2         5         0.00         0         295508B           0         1         0.00         0.00         0         21146D           0         8         16         0.00         0.00         0         21146D           0         8         16         0.00         0.00         0         21146D           0         8         20         1.00         18         NTDRALIC FLUID, CHERRY         21146D           0         8         20         1.00         0         0         0         0           0         5         12	H         F         R         Price         Price           Location         C/A 40 y         Low         High Meight 1/S         Volume 1/S         VOL Resarks         Military Spec.         Per 1/S           22         0         3         5         0.00         0.00         0         0.00         0           32         0         3         5         0.00         0.00         0         0         0.00         0           32         0         3         5         0.00         0.00         0         0         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0         0         0         0         0         0         0.00         0         0.00         0.00         0         0.00         0.00         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0.00         0         0         0         0         0         0         0         0         0	H         F         R         Part Number         Hat'l Stock Humber         Momenclature         Military Spec.         Per I/S         O           Lecation         C/A 01y         Low         Migh         Meight I/S         Valume 1/S         VOC         Remarks           J2         0         3         5         0.00         0.60         0         2           J2         0         3         5         0.00         0.60         0         0         2           J2         0         3         5         0.00         0.60         0         0         2           J150-01-255-433         SEARSE, A/C RADAR 1         2955080         0.00         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <t< td=""><td>H         F         Part         Nat'l         Stoch         Number         Mat'l         Stoch         Number         Military Spec.         Per I/S         Diment         V//           Lacation         C/A GIY         Low         High Neight I/S         Yoluwe I/S         YOL         Resarts         Notene I/S         YOL         YOL         YOL         YOL</td></t<>	H         F         Part         Nat'l         Stoch         Number         Mat'l         Stoch         Number         Military Spec.         Per I/S         Diment         V//           Lacation         C/A GIY         Low         High Neight I/S         Yoluwe I/S         YOL         Resarts         Notene I/S         YOL         YOL         YOL         YOL

HI0601-1 06/20/95

### HAZARDOUS INVENTORY CONTROL SYSTEM Haster List - Part Nucber Sequence , All Iteos

Page: 3°

÷

Sec. 289

N F R I	Part I	Nuober		Nat'l S	tock Nuober	Nocenclatu	Pe		lilitary Spec.	Price Per I/S	Qty On Hand	V/P	U/I
Location	C, : ::	/A Oty	Lon	High :::::	Neight I/S	Volune I/S	VOC ROD	arks				998889 88888 88888 8888 8888 8888 8888	
(	)053	6	4	6850-00 [.] 9	-181-7933 0.00	ANTIFREEZE 0.00	0	٥	6153	30.00	11	0	GL
2	)054	0	3	8030-00- 9	-087-8630 0.00	ANTISIEZE, 0.00	HOLY B Q	8	3483	0.00	7	0	
	)055	0	,	8030-00- 20	292-1102 0.00	ANTISIEZE, 0.00	COHPOUND Ø	2	2361	0.00	0	0	
	058	0	3	8030-01- 5	•044-5034 0.00	ANTISIEZE, 0.00	COMPOUND 0	5	5448	0.00	0	0	
	059	0	2	8030-00- 5	286-5453 0.00	ANTISIEZE, 0.00	COHPOUND O	9	07D/E	0.00	0	0	99000¢
0	062	0	4	8030-01- 8	275-5050 0.00	ANTISEIZE I 0.00	)00 (			0.00	0	0	
0	080	0	12	9150-01- 24	318-6008 1.00	LUBE DIL, 1.00	IND CYCLE EI O	IINE		3.32	33	0	QT
0	106	0	0	6810-00- 0	297-9540 0.00	NATER, BATI 0.00	IERY O	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$ <u>1</u>	0.00	0	0	
0	256	0	3	6810-00- 5	281-2014 0.00	CITRIC ACII 0.00	) HONO O	2	<u></u>	0.00	0	0	
02	280	0	1	6850-00- 1	392-9751 0.00	CLEANING CO 0.00	IHPOUND O	4	3454	0.00	0	0	
02	282	0	5	6850-00- 10	224-6657 0.00	RIFLE CLEAN 0.00	IING COHPOUN O	D 31	12	0.00	0	0	
02	84	0	1	6850-00-' 1	965-2359 0.00	CLEANING CO 0.00	HPOUND 0	22	230	0.00	0	0	
03	12	0	2	<b>8030-00-</b> 2 4	272-5830 1.00 1	CORROSION P 1.00	REVENTION Q	18	1487	3.00	1	0	6L
03	12	0	2	8030-00-2 4	272-8530 0.00	CORROSION P 0.00	REVENTION C 0	HPD 18	)4 <b>87</b>	0.00	0	0	
03	18	0	4	8030-00-2 8	244-1297 1.00 LB	CORROSION P 0.48 QT	REVENTION C 0	OHP SOL HI	L-C-16173D	3.10	0	0	GL
03	22	25	30	8030-00-9 130	38-1947 1.00 LB	CORROSION P 0.48 GT	REV. COMP SI O	PRAY HI	L-C-81309	5.00	120	0	CN

	HI0601-1 06/20/95				HAZ	A R D O U S Haster I	INVEN List - Part N	TORY CON Under Sequence	TROL SYSTE All Items	M		P	age:
	H F R	Part ====	Nuaber		Nat'] S	itock Number	Nomenclatu	re	Wilitary Spec.	Price Per I/S	Qty On Hand	¥/P	U/I
	Location	::	C/A Qty	Low	High =====	Weight I/S	Volume I/S	VOC Remarks				*****	
	7	0331	0	1	8030-00 3	-823-8039 0.00	CORROSION, 0.00	RESISTANT	81706	0.00	3	0	
	24 27	0349	5.	1	9150-00 5	-252-6380 0.00	FLUID, CUT 0.00	ring O	VVC846	25.06	5	0	CN
	26	0349	5	1	9150-00 5	-265-9405 0.00	FLUID, CUT 0.00	THG O	VVC846	12.58	5	0	GL
8 8	*******	0367	0	4	6505-00 6	-994-7224 0.00	T-SCRUB IOU 0.00	DINE O		0.00	0	0	
5		0516	0	0	7930-00 1	-664-6910 0.00	GLASS CLEAN 0.00	IER O	40A TY1	0.00		0	
		0542	0	3	9150-00 6	-145-0268 0.00	GREASE, AIF 0.00	ICRAFT 0	81322	0.00	0	0	******
3	4	0542	40	20	9150-00 70	-935-5851 0.00 LB	AIRCRAFT GR 0.00 QT	EASE 0	MIL-6-81322D	0.00	2	0	GL
	******	0546	0	3	9150-00 5	-269-8255 0.00	GREASE, AIR 0.00	CRAFT 0	4343-C	0.00	0	0	
		0549	0	3	9150-00· 5	-985-7247 0.00	GREASE, AIR 0.00	CRAFT O	23827	0.00	0	0	****
		0556	0	2	9150-00- 5	-141-6770 0.00	GREASE, BEA 0.00	RING AND ROLLER O	25013	0.00	0	0	
		0563	5	3	9150-00- 8	-180-6381 0.00	GREASE, GEN 0.00	ERAL PURPOSE O	24139	4.87	3	0	QT
		0565	0	3	9150-00- 6	235-5555 0.00	GREASE, GEN 0.00	ERAL PURPOSE O	23549	0.00	5	0	GL
	(	)575	0	3	9150-00- 5	965-2003 0.00	GREASE, HOL 0.00	Y B 0	21164	0.00	0	0	
	(	)585	0	3	9150-00- 2	530-6814 0.00	GREASE, WIR 0.00	E ROPE O	18458	5.00	1	0	
	(	)661	0	2	9150-00- 4	223-4134 0.00	FLUID, HYDR 0.00	ALIC	5606 RED	0.00	0	0	
	(	)670	0	3	9150-00- 6	261-8317 0.00	FLUID, HYDR/ Q.00	ALIC O	17111	0.00	0	0	0.00

÷

HI0601-1 06/20/95

## HAZARDOUS INVENTORY CONTROL SYSTEM Haster List - Part Number Sequence, All Items

ć

1. 1. 1. 1.

H F R	Part	Nunber		Nat'] S	tock Nuber	Nocenclai	ure		Hilitary Spec.	Price Per I/S	Qty On Hand	V/P	U/I
Location	0 3 0 A	C/A Oty	Lon	High	Weight I/S	Volune I,	S VOC I	Robarks				6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
	0691	0	2	9160-00 3	-685-0913 0.00	INSULATE, 0.00	OIL ELECT	IRIC	3487-82A	0.00	0	0	
34 35	0697	0	4	6850-01 6	-277-0595 0.00	COMPOUND, 0.00	CLEANING O		134 HI-SOLV	0.00	5	0	GAL
	0698	0	2	<b>6505-5</b> 5 4	-261-7256 0.00	ALCOHOL, 0.00	ISOPROYL O		37443	0.00	0	0	
	0701	10	4	6810-00 15	-753-4993 0.00	ALCOHOL, 0.00	ISOPROPYL O		735	1.83	10	0	CN
	0779	6	2	9150-00 8	-753-4799 0.00	HYDRALIC 0.00	FLUID PETR O	INHI8	17672	0.00	0	0	GL
	0781	0	44	9150-00 300	-985-7099 0.00	LUBE OIL, 0.00	AIRCRAFT 0	TURBOSHAFT	23699	3.60	708	0	0T
	0801	0	3	9150-00 5	-223-4116 0.00	OIL, LUBE 0.00	GEAR O		6086	0.00	(	0	889898
32	0808	)	2	<b>9150-00</b> 4	-240-2235 0.00	LUBE OIL. 0.00	GEAR 0		6086	0.00	1	0	Pĭ
	0817	0	2	9150-00· 3	-231-9045 0.00	OIL, LUBE 0.00	0		820	0.00	0	0	
	0819	0	2	9150-00- 3	-263-3490 0.00	OIL, LUBE 0.00	0	~~~~ <del>~</del> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0823	9.00	0	0	
	0823	0	2	9150-00- 3	271-8427 0.00	OIL, LUBE 0.00	0	**********	3150	0.00	0	0	
32	<b>)82</b> 4	0	2	9150-00- 5	985-7231 0.00	HYDRALIC I 0.00	FLUID 0		176720 2075	0.00	2	0	01
)	) <b>82</b> 4	10	10	9150-00- 20	985-7232 5.00 LB	HYDRALIC I 2.40 01	FLUID 1 O		HIL-H-17672D	19.25	20	0	CN
(	)828	0	4	9150-00- 10	985-7234 0.00	FLUID, HYI 0.00	)RALIC 0		2110	0.00	6	0	GAL
	828	0	3	9150-00- 7	985-7237 0.00	FLUID, HYI 0.00	)RALIC 0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2075	0.00	0	0	
2	831	0	5	9150-00- 5	231-6689 1.00	LUBE OIL 1.00	0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	800C	3.00	1	0	QT

HI0601-1 HAZARDOUS INVENTORY CONTROL SYSTEM Page: 06/20/95 Master List - Part Number Sequence , All Items Price Qty H F R Part Number Nat'l Stock Number Nomenclature Military Spec. Per I/S On Hand V/P U/I C/A Qty Low High Weight I/S Location Volume I/S VOC Remarks ******** 0839 LUBE OIL, INSTRUMENT 9150-00-223-4129 6085 3.00 10 0 QT 4 8 1.00 1.00 0 32 0 LUBE OIL, MOLY BEN 9.00 0841 9150-00-543-7220 25681 3 O CN 0 5 7 1.00 1.00 0 LUBE OIL, STEAM TURBINE 0848 17331 9150-00-235-9061 6.00 42 0 GAL 34 3 6 0.00 Ô 0 0.00 -----0887 6810-00-597-3608 METHANOL 0-H-2326 0.00 0 GL ٥ 4 8 0.00 0 0.00 0 ------0905 6810-00-238-8119 NAPHTHA ARONATIC 0.00 1 0 GAL 32 0 1 2 0.00 0.00 0 PENETRATING FLUID 0979 6850-00-973-9091 216 3.00 0 O CN 4 7 1.00 1 1.00 0 0 0980 9150-00-261-7899 PENETRATING OIL 2394 5.00 ٥ O PT 0 4 7 1.00 1 1.00 1 0 PETROLATUM TECH 0982 9150-00-250-0933 236A 1.75 0 GAL 0 0 4 7 1.00 1.00 0 1012 9150-00-448-5009 LUBE OIL, INSTRUMENT 7470 0.00 Ô 0 0 3 7 0.00 0.00 0 1106 LUBE, OIL 9150-01-231-8732 77988 0.00 0 0 GL 0 36 0.00 0.00 0 -----1227 8030-00-209-8005 SEALING COMPOUND 0 PT \$1732 3.00 0 5 10 1.00 1 1.00 0 0 1232 8030-00-252-3391 SEALING COMPOUND 45180 4.00 0 0 TU 6 9 1.00 0 1.00 0 _____ 1234 45180 TY3 8030-00-656-1426 SEALING COMPOUND 0 PT 5.00 2 0 2 2 1.00 1.00 0 1254 6850-00-963-5402 SILICONE COMPOUND 0 TU 21567 4.00 0 0 6 9 1.00 1.00 0 1255 6850-00-664-4959 SILICONE COMPOUND 0 0 GAL 21567 3.50 1.00 0 4 5 1.00 1 0 1257 6850-00-975-0712 SILICONE COMPOUND DC-7 4.00 O TU 4 1.00 0 0 4 7 1.00

6*

÷

HI0601-1 06/20/95

## HAZARDOUS INVENTORY CONTROL SYSTEM Haster List - Part Nubber Sequence, All Iteos

Page: 7 °

ć

7

Barran A

ł	IFR Part I	lunber	99 <b>8</b> 90 <b>9</b> 0	Nat'l St	tock Nuober	Nonenclatu	ire		Hilitary Spec.	Price Per I/S	Qty On Hand	V/P	0 U/I
1	.ocation C/	A Qty	Log	High E	leight I/S	Volune I/S	VOC	Redarks					
	1258	0	4	6850-00- 9	702-4297 1.00	SILICONE C 1.00	OHPOUND		21567	4.00	0	0	TU
	1259	0	4	6850-00- 9	880-7616 1.00	SILICONE C 1.00	OHPOUND 0		8660 DC-6	4.00	10	0	TV
80	1280	4	4	9150-00- 12	292-9689 0.00	REAPON OIL 0.00	ARCTIC 0		MIL-L-14107C	2.00	12	0	QT
	1297	Q	3	6810-00- 5	264-6618 0.00	SODIUH BIC 0.00	ARBONATE O		576	0.00	2	0	LB
00	1348	0	0	8510-00-1 0	817-0295 0.00	TALCUN POU 0.00	DER O			1.25	]	0	CUP
60	1550	0	4	9150-00-9 9	961-8995 0.00	GREASE, PLI 0.00	JG VAVLE O		27617	0.00	4	0	TU
2	1561	0	2	8030-01-( 7	0.00	PLASTISOL ( 0.00	OHPOUHD 0		20689-D	0.00	7	0	
C	1580	24	24	6850-00-( 48	)05-5305 1.00 LB	AIRCRAFT CL 0.48 QT	EANING ( 0	COHP AEROSOL	HIL-C-43616C	4.00	48	0	DZ
	1580	0	5	6850-01-( 8	)45-7929 1.00 1	CLEAN, AIRC 1.00	RAFT COI O	1POUND	43616	32.00	2	0	GAL
5	1589	0	0	8030-12-0 0	0.00	CORROSION, 0.00	PREVENT O	COHPOUND	85054 TY2	0.00	2	0	QT
****	1590	0	Ô	8030-00-0 0	81-2338 0.00	SEALANT 0.00	0		22473-E	0.00	0	0	TV
6	1591	0	4	<b>8030-00-0</b> 4	81-9022 0.00	SEALING COH 0.00	POUND O	(5000000000000000000000000000000000000	22473-8	0.00	4	0	
NH 	1596	6	2	9150-01-1	17-2928 4.00 LB	GREASE ROLL 1.92 QT	ER BEARI O	NG	DOD-G-24508A	19.00	5	0	CN
32	1598	10	20	9150-01-0. 36	35-5392 0.00	LUBE OIL, G	EAR O		2105	2.11	20	0	Qĩ
	1598	0	5	9150-01-03 8	35-5393 0.00	LUBE OIL, GI 0.00	EAR O		60 80/90	6.00	7	0	GAL
	1620	0	5	5970-00-9( 9	52-3335 0.00	SCOTCH KOTE 0.00	0	000000		4.00	3	0	CN

Page: 8 * HAZARDOUS INVENTORY CONTROL SYSTEM 10601-1 06/20/95 Master List - Part Number Sequence , All Items Price Qty Military Spec. Per I/S On Hand V/P U/I F R Part Number Nat'l Stock Number Nomenclature ..... Low High Weight I/S Volume I/S VOC Remarks Location C/A Qty 9150-00-823-7860 SILICONE LUBE COMPOUND 7237 0.00 0 0 CN 1749 3 5 0.00 0 0.00 0 FREEZING COMPOUND 0.00 0 0 1761 6850-00-405-9385 3 5 0.00 0.00 0 Ö .......... CORROSION INHIBIT 1816 22110 0.00 ٥ ۵ 6850-00-368-5233 0 0.00 0 0 0 0.00 GRAPHITE/COLLOIDIAL 24131 0.00 3 Ô 1877 9150-00-283-0662 2 0.00 0 0 1 3 0.00 ____ CLEANER/LUBE/PRESERVER 636400 0.00 19 2057 9150-01-053-6688 0 GAL 0.00 0 31 20 0 0.00 10 GREASE, GENERAL PURPOSE 630AA 0.00 2266 9150-00-663-1770 0 0 0.00 3 5 0.00 0 ٥. -----DRY CLEANING SOLVENT TYPE II PD680 6850-00-110-4498 1.50 0 0 PT 2283 0.96 QT 0 5 10 2.00 LB 0 DRY CLEAN SOLVENT PD 680 6850-00-274-5421 0.00 2 ٥ 2283 0.00 0 0 0 0 0.00 RUBBER CEMENT 1617-A 0.00 0 O PT 2294 8040-00-664-4318 0.00 0 0 1 2 0.00 FLUX SOLDERING 95263 0.00 0 QT 2327 3439-00-069-5815 0 0.00 0 0 0 0 0.00 INSULATE ELECTRIC COMPOUND 0.00 2327 5970-00-233-6239 30648 0 Ô 4. 7 0.00 0.00 Ô 0 HYDRAULIC FLUID CATAPULT 4.00 3 0 QT 2367 9150-01-080-5961 MIL-H-22072C 0.96 QT 0 0 5 10 2.00 LB 32 ____ 2402 6810-00-006-4205 ETHYLENE GLYCOL TECHNICAL MIL-E-95008 6.50 39 0 GL 4.32 QT Ô 39 10 20 8.33 LB MINERAL OIL 0.00 1 0 6505-00-133-6000 2416 0.00 1 3 0.00 0 0 ____ CLEAHING COMPOUND, SOLV 0 0 GAL 11090 0.00 2436 6850-00-224-6665 0 0 0.00 0.00 0 0 0 OZ CLEANING COMPOUND, SOLV 81302C 0.00 0 6850-00-935-1082 2466 0.00 0 0 0 0.00 0

é

HI0601- 06/20/9	1 5			HAZ	A R D O U S Haster	I H V E H List - Part	l T O R Y Nuober S	CONTR equence , Al	OL SYSTE 1 Iteos	M		Pa	ige: S	90
H F R	Part Nu	ober		Nat'l :	Stock Nunber	Nonenclat	ure		Nilitary Spec.	Price Per I/S	9ty On Hand	¥/P	U/I	÷
Location	n C/A	Oty	Lon	High	Weight I/S	Volune I/	S VOC	Reparks		\$99999999 \$9999999 \$999999999				
	2598	0	0	8030-0 0	0-145-0111 0.00	CORROSION 0.00	PREVENT O	Compound	21067	0.00	0	0		
800000000 80000000	2635	0	0	6810-0( 0	0-584-4070 0.00	XYLENE TE 0.00	CHINCAL Q		84680	0.00	0	0	GAL	
<b>6</b> 000000000	2637	0	0	5970-01 0	0-161-7422 0.00	INSULATE, 0.00	VARNISH O	ELECTRICAL		0.00	0	0	GAL	
	2670	0	0	6810-01 0	0-476-5612 0.00	TRICHLORO 0.00	ETYHANE 0		81533	0.00	0	0		
900000000	2672	0	0	1020-0( 0	0-491-8672 0.00	FLUID, RE 0.00	COIL		18694 TYPE A	0.00	0	0	GAL	
	2672	0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	9150-0( 0	)-349-9290 0.00	LUBE FLUO 0.00	ROCARBON O		60326	0.00	0	0		
	2846	0	0	9150-0( 0	0.00	LUBE OIL, 0.00	EXPOSED 0	GEAR	27843	0.00	0	0		
	2847	0	0	9150-0( 0	)-149-7432 0.00	HYDRAULIC 0.00	FLUID 0		83282	0.00	0	0		
	3019	0	0	9150-0( 0	)-292-9657 0.00	LUBE OIL, 0.00	TEXACO 0		RCO-68	0.00	0	0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
31	3019	0	6	9150-00 12	)-292-9697 0.00	LVBE OIL, 0.00	REFRIG O	************	825A	4.00	5	0	6L	
31	3019	0	40	9150-00 48	)-598-2911 0.00	LUBE OIL, 0.00	REFRIG I O	RCO-2	825-A	0.00	28	0	01	
	3068	12	5	8040-00 18	0.00	ADHESIVE, 0.00	SEALANT O		46106	3.80	12	0	TU	
6	3178	0	2	6850-00 6	-003-5295 0.00	CLEAN/LUB 0.00	E CHPD O		83360	0.00	9	)	****	
32	3228	0	1	9150-01 3	-154-3753 0.00	LUBE OIL, 0.00	KOL Q		324606	0.00	2	0	GAL	
	3533	0	3	6810-00 6	-687-8429 0.00	METHYL KEY 0.00	YTONE TEC O	)N	740-84	0.00	0	0		
********	3570	0	3	7930-01 6	-323-2005 0.00	WAX AIRCR/ 0.00	NFT 0		1600	0.00	0	0		

8. 1. 1. A.

HI0601-1 06/20/95

Contraction of the

# HAZARDOUS INVENTORY CONTROL SYSTEM Master List - Part Number Sequence , All Items

Page: 10 *

÷

H F R Part Numbe	r =========	Nat'l Stock Number	Nomenclature	Military Spec.	Price Qt Per I/S On	y Hand	V/P	U/I
Location C/A Qt	y Low = =====	High Weight I/S	Volume I/S VOC Remarks					
3580	0 0	9150-01-237-7980 0 0.00	LUBE OIL, FOOD 0.00 0	24651	0.00	0	0	
3581	0 0	9150-01-237-7467 0 0.00	CLEANER, OPTIC LENS 0.00 0	5606	0.00	0	0	-
3638	0 3	6850-00-188-9875 6 0.00	CLEANER, OPTIC LENS 0.00 0	43454	0.00	0	0	BT
3744	) 2	6810-00-241-1203 5 0.00	CUPRIC SULATE 0.00 0	265	0.00	0	0	LB
3867	) 4	6850-00-148-7161 8 0.00	AVIONICS CLEANER 0.00 0		0.00	0	0	CH

DOC RI M STOCK NUMBER DUA IDENT FROM & FSC NIIN ADD SSC SHIPPED FROM SHIP T	INTITY DOCUMENT NUMBER SERIAL SLIPPLEMENTARY S FUNC REQUISITIONER DATE SERIAL BOOM ADDRESS S DY VIDENCISS 7 17003 111	DISTRI- PROU BUTION ECT EE DEL DATE A DATE A DOLLARS CTS DATE A PROJECT TOTAL PRICE DOLLARS CTS DOLLARS CTS DOLLARS CTS
A B WAREHOUSE LOCATION TYPE OF UNIT UNIT WEIGHT CARGO PACK F G H 1	CUNIT U F C N M F C FREIGHT RATE	D E E DOCUMENT MAT QUANTITY DATE COND R S
	E FLDICE CADUT COMD. E ERIS: ITOTAL WEIGHT RECEIVED BY AND DATE	INSPECTED BY AND DATE
SELECTED BY AND DATE S H J U 1 2 P S F F PACKED BY AND DATE S J 4 J 4 J 5 J 4 J 5 J 6 J 6 J 7 J 7 J 7 J 7 J 7 J 7 J 7 J 7	RS TOTAL CUBE	D-95 WAREHOUSE LOCATION
AA BB FIRST DESTINATION ADDRESS	CC DD LLLLO	En OS/GEE For
11 13 TRANSPORTATION CHARGEABLE TO DD Form 1249-1, JUL D1 PREVIOU	12 FF J J. AMDED ( 14 BILADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)	SON LT. SCUSU 5 RECEIVER'S DOCUMENT NUMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 2 OCC R1 M STOCK NUMBER	5 27 28 29 30 31 32 33 34 35 35 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 JANTITY DOCUMENT NUMBER A S SERIAL H S SERIAL	53 55 55 57 58 59 60 61 52 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 ND DISTRI- PROJ BUTION ECT E F DEL U RI UNIT PRICE DOLLARS CTS
HIPPED FROM USS COMTE DE GRASSE DD-974	5      6 5    6  <u>201] VAD600,517 (7004          </u> то Маяк Fi	
A B WAREHOUSE LOCATION TYPE OF UNIT UNIT WEIGH CARGO PACK F G H I SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED) FREIGHT CLASSIFIC	IT         UNIT         U F C         N M F C         FREIGHT RATE           CUBE         J         K         L         M           J         K         L         M	DOCUMENT MAT QUANTITY DATE COND N O P O R S
T U ITEM NOMENCLATU X BLLY U SELECTED BY AND DATE TYPE OF CONTA	INERISI TOTAL WEIGHT	INSPECTED BY AND DATE
S H P S E P ACKED BY AND DATE NO. OF CONTAIN S H S H S H S H S H S H S H S H	INTERS TOTAL CUBE	0-95 WAREHOUSE LOCATION
REMARKS AA BB FIRST DESTINATION ADDRESS	Date SHIPPED	Ques 05'61
11 13 TRANSPORTATION CHARGEABLE TO	12 FF N. J. L. D.C. 14 BILADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)	

i a

	DOC RI M STOCK NUMBER DUANTITY DOCUMENT NUMBER SERIAL SUPPLEMENTARY SUPP	
	SHIPPED FROM USS CIMITE DE GRASSE DD-TTY B B C D	DOLLARS [CT
	WAREHOUSE LOCATION     TYPE OF CARGO     UNIT PACK     UNIT UNIT CUBE     U F C     N M F C     FREIGHT RATE     DOCUMENT MAT DATE     OUANTITY DATE       F     G     H     I     J     K     L     M     N     O     P     O     R       SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)     FREIGHT CLASSIFICATION NOMENCLATURE     I     J     K     L     M     N     O     P     O     R	s
	T U ITEM NOMENCLATURE A POLYURETHANE CONSTINCT INSPECTED BY AND DATE INSPECTED BY AND DATE INSPECTED BY AND DATE	IND DATE
	S H H U P S E E PACKED BY AND DATE NO. OF CONTAINERS TOTAL CUBE B E PACKED BY AND DATE WAREHOUSED BY AND DATE WAREHOUSE LOW	CATION
		. 1
	AA     BB     CC     DD     ONE ALL COMPANY     DEF     SC       FIRST DESTINATION ADDRESS     DATE SHIPPED     FF     J.J. AND KOS ON AST.SC     FF       11     12     FF     J.B. AND KOS ON AST.SC	USN
	I3 TRANSPORTATION CHARGEABLE TO     I4 BLADING, AWB, OH HECEIVER'S SIGNATURE (AND DATE)     I5 HECEIVER'S DECOMPLYT HUMDER'S       DD Form 1348-1, JUL 91     PREVIOUS EDITION MAY BE USED     DOD SINGLE LINE       S/N 0102-LF-013-7500     DOD SINGLE LINE     DOD SINGLE LINE	ITEM RELEASE/RECEIPT DOCUMEN
IDE	$\frac{2}{2} \frac{3}{4} \frac{4}{5} \frac{6}{6} \frac{7}{7} \frac{8}{9} \frac{9}{10} \frac{11}{11} \frac{12}{13} \frac{11}{11} \frac{15}{15} \frac{15}{11} \frac{18}{19} \frac{19}{20} \frac{21}{22} \frac{23}{24} \frac{23}{28} \frac{23}{27} \frac{28}{28} \frac{23}{29} \frac{33}{29} \frac{33}{29} \frac{33}{29} \frac{33}{29} \frac{33}{29} \frac{39}{29} \frac{4}{41} \frac{42}{43} \frac{44}{49} \frac{49}{50} \frac{51}{51} \frac{52}{53} \frac{33}{55} \frac{55}{55} \frac{57}{59} \frac{59}{59} \frac{66}{50} \frac{65}{65} \frac{65}{65$	68 69 70 71 72 73 74 75 76 77 78 79 80 RI UNIT PRICE DOLLARS CTS
	PROJECT PROJECT PROJECT PROJECT	TOTAL PRICE DOLLARS TOTS
	ANEHOUSE LOCATION TYPE OF UNIT UNIT WEIGHT UNIT U F C N M F C FREIGHT RATE DOCUMENT NAT QUANTITY CARGO A L J K L M N O P Q R STITUTE DATA (ITEM ORIGINALLY REQUESTED) FREIGHT CLASSIFICATION NOMENCLATURE	s
	U ITEM NOMENCLATURE X COSTING, DDDKY, CARY ISELECTED BY AND DATE INSPECTED BY AND DATE INSPECTED BY AND DATE	ATE
E	PACKED BY AND DATE NO. OF CONTAINERS TOTAL CUBE	DN
	IT DESTINATION ADDRESS DATE SHIPPED FON 12 FF. J. J. ANDERSDW LT. SGUSY	
	WINSPORTATION CHARGEABLE TO       14 BLADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)       15 RECEIVER'S DOCUMENT NUMBER         Orm 1346-1, JUL 91       PREVIOUS EDITION MAY BE USED       DOD SINGLE LINE ITEN	A RELEASE/RECEIPT DOCUMENT

DOC RI M STOCH	<u>k number</u> Niin 2336			DATE SERIAL SUPPLEMENTAR DATE SERIAL ADDRESS		DEL DATE Q	DOLLARS CTS
USS Comite De DD 974	EGRA	536				QUANTITY	E
WAREHOUSE LOCATION F SUBSTITUTE DATA (ITEM ORIGINALLY REC	G G G G G G G G G G G G G G G G G G G					) R	s
T			TURE	an a	iv I		
w		. ELECTE	1/AL COMIN		1 1y ••		
SELECTED BY AND DATE		TYPE OF CON	TAINER(S) TOTAL WEIGHT		5- 5 (1-4-5- DATE	AREKOUSE LOCATION	
		NO. OF COMI2	6			0	· .
MEMANAS AA FIRST DESTINATION ADDRESS	1 1 1 1 88		CC	- Jalal	Quem E	BUSH	· · · · · · · · · · · · · · · · · · ·
11 13 TRANSPORTATION CHARGEABLE TO			12 14 BLADING, AWB, CR RE	CEIVER'S SIGNATURE (AND DATE)	DSDAY LT. SCI		
DD Farm 1242-1, JUL 01	9	PREV	IOUS EDITION MAY BE U	3ED	DOD	SINGLE LINE ITEM RELEA	SE/RECEIPT DOCUMEN
S/M 0102-LF-013-7500							
							72 73 76 76 76 77 78 70 90
1 2 3 4 5 6 7 8 9 10 11 12 13 14 DOC RI M STOCK IDENT FROM & FSC	NUMBER NIIN 3/4/60			NT NUMBER DATE SERIAL ELEPTIEMENTARY DATE SERIAL ELEPTIEMENTARY			UNIT PRICE DOLLARS CTS
USS COMPTE DUS DD-974	CNA	<u>55</u> 2 .	Þ TO	M			DOLLARS CTS
NAREHOUSE LOCATION	TYPE OF CARGO	B UNIT UNIT WEIGH PACK	HT UNIT UFC CUBE	N M F C FREIGHT RATE	DOCUMENT MAT C DATE COND	DUANTITY	
	G			1 64	N O P O	R	s
SUBSTITUTE DATA (ITEM ORIGINALLY REQU	IESTED)	FREIGHT CLASSIFIC	ATION NOMENCLATURE		2 2		
, , , , , , , , , , , , , , , , , , , ,			IRE		<u>v</u>		
			0		1		
SELECTED BY AND DATE		TYPE OF CONTA	NER(S) TOTAL WEIGHT	RECEIVED BY AND DATE		PECTED BY AND DATE	
Y SELECTED BY AND DATE			H. EDOXY Averis) 7 Total Weight		- 50-98	PECTED BY AND DATE	
SELECTED BY AND DATE		TYPE OF CONTAIN	A POD XY AVERISI TOTAL WEIGHT 3 IERS TOTAL CUBE		Г- <u>30-98</u> вате WA	PECTED BY AND DATE	
SELECTED BY AND DATE		2 NO. OF CONTAIN	H. PDO XY INERISI ¹ TOTAL WEIGHT 3 IERS TOTAL CUBE	RECEIVED BY AND DATE	Г-J0-98 В Вате WA	PECTED BY AND DATE	
SELECTED BY AND DATE		2 NO. OF CONTAIN	B BDO XY INVERISI TOTAL WEIGHT 3 IERS TOTAL CUBE 6	RECEIVED BY AND DATE	- JO-98 8 DATE W2	PECTED BY AND DATE	
SELECTED BY AND DATE		2 MO. OF CONTAIN 5	B BDO XY INVERISI TOTAL WEIGHT 3 IERS TOTAL CUBE	RECEIVED BY AND DATE	- 30-98 8 DATE W2		
SELECTED BY AND DATE	8	TYPE OF CONTAIN 2 NO. OF CONTAIN 5	B DO XY INVERISI TOTAL WEIGHT 3 IERS TOTAL CUBE 6 6	RECEIVED BY AND DATE	-20-98 DATE WE DATE WE TO THE FOR		
A	8	TYPE OF CONTAIN 2 NO. OF CONTAIN 5	A DOXY INVERISI TOTAL WEIGHT 3 IERS TOTAL CUBE 6 CC DATE SHIPPED	RECEIVED BY AND DATE	-20-98 DATE WE DATE WE For For Son LT. S. 46		
SELECTED BY AND DATE	8	TYPE OF CONTAIN 2 NO. OF CONTAIN 5	A DOD XY INVERIS) TOTAL WEIGHT 3 IERS TOTAL CUBE 6 CC DATE SHIPPED 12 14 BALADING, AWB, OR RECE	RECEIVED BY AND DATE	-20-98 DATE DATE WE DATE ID DATE DATE For For Son LT. SC (C IS RECEIVER'S DOCUMENT		

D	Form	1348-1.	JUL 91
/N	0102	LF-013-	7500

DOC FROM & STOCK NUMBER DEENT FROM & FSC NUM BOD 1010974518	ADD BY OUANTITY DOCUMENT NUMBER ADD BY HERE SE ADD BY HERE S		DEL DEL DOLLARS CTS
USS CONTE DE CILAS DD-974	5E	c D	E
WAREHOUSE LOCATION TYPE OF U CARGO P/ G H SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)		C FREIGHT RATE DOCUMENT MAT DATE COND M N O P I	
	u item nomenclature x ADHESIVE, FIRE RESS Itype of containers) Atotal weight		NSPECTED BY AND DATE
P S PACKED BY AND DATE	2 3 NO. OF CONTAINERS TOTAL CUBE	WAREHOUSED BY AND DATE	WAREHOUSE LOCATION
REMARKS	5 6	PANO E	no VER.D
A ¹ BB FIRST DESTINATION ADDRESS	CC DATE SHIPPED 12 F	FUL ANDEDSON LT. SC.	2654 R 254
3 TRANSPORTATION CHARGEABLE TO	PREVIOUS EDITION MAY BE USED	URE (AND DATE) 15 HECEIVEN'S DOCUME	NI NUMBEH
3         4         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21           XC         Ri         M         STOCK NUMBER         STOCK NUMBER         NIIN         AI           FROM         S         FSC         NIIN         AI	22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 DD	43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 SUIPPLEMENTARY JFUND DISTRI- ADDRESS B BUTION ECT EET EE	63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 OD U DEL ATE
рев FROM ISS Comate Die CAASSE 1-974		C D	DOLLARS CTS
OUSE LOCATION TYPE OF UNIT CARGO PACK G H 3STITUTE DATA (ITEM ORIGINALLY REOUESTED) FREI	UNIT WEIGHT UNIT UFC NMFC CUBE L I J K L GHT CLASSIFICATION NOMENCLATURE	FREIGHT PATE DOCUMENT MAT OU DATE COND M N O P O	P S
	NOMENCLATURE	RECEIVED BY AND DATE	ECTED BY AND DATE
U 1 2 PACKED BY AND DATE	IO. OF CONTAINERS TOTAL CUBE	7 SEV 6-26-95 B WAREHOUSED BY AND DATE	EHOUSE LOCATION
	CC DATE SHIPPED	1ª Kall Over Ost	(G+)
TRANSPORTATION CHARGEABLE TO	12 FF 14 B/LADING, AWB, OR RECEIVER'S SIGNATUR	JJ ANDERSON LT, SQG (AND DATE)	

	102-LF-013-7500
--	-----------------

PREVIOUS EDITION MAY BE USED

DOD SI

DATE: 05-3 TIME: 14:1	4+44	NAVY FUBLIC WORKS LENTER HAZ BREAKDOWN OF WAST	ARDOUS WASTE E RECEIVED F	DISFOSAL DIVISION 195	PAGE: 3	_
GORTED BY	ACTIVITY Job Order# Type	CODE CLASS & STOCK # Item Nomenclature		EPA WASTE# PWC TYPE SER.	POUNDS RECEIVED	
0075.	DOCUMENT# VESSEL	ADDITIONAL DESCRIPTION	CT GTYZHNIT	MANHOURS/SPILLS	COST CONTRACT	TAL COST
	BEDG#					
3771	USS COMTE DE GRASSE	8010 C	Ν 1 ΝΕ ΜΕΤΩΥΙΕΝ	0001/0005/0008/0007 F CHUDRIDE TOLUENE	7/0008/0009/0011/0035 TYLENE	/F002/F003/F00
DI 20 95	5013 7003	1,1,1 TRICHLORGETHANE, AC	ETONE MEK &	TETAL )		
	9512398	UN1263 3			2.3.2	
	VYA SALANY	PRINT		58 F2	204.16	
						331 26
4737	USS COMTE DE GRASSE	8010 01 278 1548 C	N 3	D001/D005/D006/D007	/D008/D009/D011/D035	/F002/F003/F00
2 10 95	1640542 DD	RO WASTE PRINT(ETHYLBENZE)	NE, METHYLEN	CHLORIDE, TOLUENE,	XYLENE	
	5023 7001	1.1.1 TRICHLORDETHANE, AC	ETUNE MEK & I	1EIHL)	174	
	7722770-00	001202 2		57	74.40	
	34 - 34			F 2	68.20	142 40
<u></u>	+ + + + S DO 2 4 + 4 /					142.60
OTAL RECO	RDS: 13		TOTAL	POUNDS RECEIVED	356	
			TOTAL	PUC COST	278.56	
			TOTAL	CONTRACT COST	195.80	
6291	USS COMTE DE GRASSE	6810 00 281 4163 B	t 2	0002/0009/0010		
4 04 95	1640542 DD	RO WASTE CORROSIVE LIQUID	POISON N.D.S	CONTAINS NITRIC AC	ID AND ME	
	<u>5082 7001</u> 9522960	UN2922 6.1		······	58	
				57	34.80	
	- 3 78 2 - F 7 4 5			B2	40.02	74 82
	# - ~~ + }				•••••••••••••••••••••••••••••••••••••••	/4.02
OTAL RECO	RDS: 13		TOTAL	POUNDS RECEIVED	58	
			TOTAL	PUC COST	34.80	
			TOTAL	CONTRACT COST	40.02	
4919	USS COMTE DE GRASSE	6505 00 261 7256 Cł	N 1	D001		
2 15 95	1640542 DD	RQ WASTE ISOPROPANOL				
	<u> </u>	UN1219 3		·····		
	NYA531110 5-16-85			58	1.76	
	Jo = 0.3,			AL	3.10	4.86
OTAL RECO	RDS: 13	······	TOTAL	POUNDS RECEIVED	2	·
	·····		TOTAL	PHC COST	1.76	
			TOTAL	CONTRACT COST	3.10	
	- <u></u>		· · · · · · · · · · · · · · · · · · ·			

		CODE CLASS & STOCK #		EPA WASTE#	POUNDS RECEIVED	
	ACTIVITY	TTEM NOMENCE ATURE		PWC TYPE SER.	COST PWC	
UKIED BI	DOCUMENT# VESSEL	ADDITIONAL DESCRIPTION		CONTRAL! ITPE SER.		TUTHE CUST
ATE:	DRUM# BLUG#	DUT CLASS7RAZ CLASS7PRU				
		(810	CN 2			
4906	USS COMTE DE GRASSE	PHOTOLUMINESCENT PAINT	-			
2 16 95	5022 2009				44	
	9522483	NOT REGULATED		-5.7	27.60	
	( + 1) (p:			m2	8.74	
						36 34
	56 55 - 8931					
			от I			
4972	USS COMTE DE GRASSE	8040	61			
2 17 95	1640542 00	HUMESTON				
	9572481	NOT REGULATED			5 7 D/a	
	5056 1946			58 M2	1.52	
	+ + + Deme 2/21/45					8 % 0
	sent	· · · · · · · · · · · · · · · · · · ·				
6912	USS COMTE DE GRASSE	9615 000 985 7099 SVNTHETIC 011	D1 2			
14 05 95	1640542 DD	STRIBETE DIE				
	5082 7002 9522958-59	NOT REGULATED			126	
	7722770			57	75.60	
				M7	23.94	
				M2	23.94	· 9.54
				M2	23.94	× <u>v9.54</u>
			70701		<u>23.94</u>	v <u>9.54</u>
TOTAL REC	ORDS: 13		TOTAL TOTAL	M2 POUNOS RECEIVED PMC COST	<u>4413</u> 2665.04	. 9.54
FOTAL REC	ORDS: 13		TOTAL Total Total	M2 POUNDS RECEIVED PHC COST Manhour Cost	<u>4413</u> 2565.04 .00	. 99.54
FOTAL REC	ORDS: 13		TOTAL Total Total Total Total	M2 POUNDS RECEIVED PWC COST Manhour Cost Contract Cost	<u>4415</u> <u>465</u> 04 .00 843.95	- v <u>9 54</u>
FOTAL REC	0RDS: 13	A740 00 179 1345	TOTAL TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST DO01, D003	23.94 <u>4413</u> <u>2465.04</u> <u>00</u> <u>843.95</u>	- v9 5 <u>4</u>
TOTAL REC	URDS: 13 USS COMTE DE GRASSE	4240 00 179 1365 R0 WASTE 0X10121NG SUB	TOTAL TOTAL TOTAL TOTAL OR 1 STANCES, SOLID, C	M2 POUNDS RECEIVED PUC COST MANHOUR COST CONTRACT COST DOO1.D003 CORNOSIVE.N.O.S. (CONT	23 94 4410 2365 04 00 843 95 AINS	- v9 54
TOTAL REC 3096 12 08 94	URDS: 13 USS COMTE DE GRASSE 1440542 DD 4342 6001	4240 00 179 1365 RO WASTE OXIDIZING SUB BARIUM NYDROXIDE OCTAM	TOTAL TOTAL TOTAL TOTAL TOTAL OR 1 STANCES,SOLID.C YDRATE, CALCIUM	M2 POUNDS RECEIVED PVC COST CONTRACT COST CONTRACT COST DOO1.DO03 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIL	23.94 4415 2665.04 .00 843.95 AINS M HYDROXIDE.	- v9 5 <u>4</u>
3096 12 08 94	0RDS: 13 USS COMTE DE GRASSE 1640542 DD 4342 6001 9538450	4240 00 179 1345 R0 WASTE OXIDIZING SUB BARIUM HYDROXIDE OCTAH UN3085 5.1	TOTAL TOTAL TOTAL TOTAL DR 1 <u>Stances, Solid, C</u> Ydrate, Calcium	M2 POUNDS RECEIVED PWC COST CONTRACT COST DO01.D003 ORROSIVE.N.0.5.(CONT I HYDROXIDE, POTASSIU 57	23.94 4415 2465.04 .00 843.95 AINS M HYDROXIDE. 69 41.40	- v9 5 <u>4</u>
3096	USS COMTE DE GRASSE 1440542 DD 4342 6001 9538450 NUL 476 402 7 J-107	4240 00 179 1345 R0 WASTE OXIDIZING SUB BARIUM MYDROXIDE OCTAH UN3085 5 1 080	TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID,C YORATE, CALCIUM	M2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST DO01.D003 ORROSIVE.N.O.S. (CONT 1 HYDROXIDE, POTASSIU 57 C2	23.94 4433 2665.04 00 843.95 AINS M HYDRDXIDE. 69 41.40 155.25	- v9 54
TOTAL REC 3096 12 08 94	USS COMTE DE GRASSE 1440542 DD 4342 6001 9538450 WV 4 70 402 7 J-177 DE 4 0241	4240 00 179 1365 R0 WASTE OXIDIZING SUB BARIUM NYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID, C YORATE, CALCIUM	M2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST DO01.D003 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIL 57 C2	23.94 4415 2665.04 00 943.95 AINS M HYDROXIDE. 69 41.40 155.25	- v9 54 
3096	USS COMTE DE GRASSE 1440542 DD 4342 6001 9538450 W/4 470 4027 January 	AZ40 00 179 1365 RO WASTE OXIDIZING SUB BARIUM MYDROXIDE OCTAH UN3085 5.1 OEA	TOTAL TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID, C YORATE, CALCIUM	M2 POUNDS RECEIVED PWC COST CONTRACT COST DOOI.DOO3 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIU 57 C2	23.94 <u>441</u> <u>2465.04</u> <u>00</u> <u>043.95</u> AINS M HYDROXIDE. <u>69</u> <u>41.40</u> <u>155.25</u>	- v9 54 
3096 12 08 94	USS COMTE DE GRASSE 1440542 D0 4342 6001 9538450 VVA 472 4027 J-177 De a 0241 0005: 13	4240 00 179 1345 R0 WASTE OXIDIZING SUB BARIUM HYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL DR 1 STANCES, SOLID, C YDRATE, CALCIUM	M2 POUNDS RECEIVED PVC COST CONTRACT COST DOOI,DOO3 CORROSIVE,N.O.S.(CONT HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED	23.94 441) 2665.04 .00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 69	- v9 54
3096 12 08 94	ORDS:         13           USS COMTE DE GRASSE         1640542           1640542         DD           4342         6001           9538450         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ           μ         μ	4240 00 179 1345 R0 WASTE OXIDIZING SUB BARIUM HYDROXIDE OCTAH UN3085 5.1 DEA	TOTAL TOTAL TOTAL TOTAL TOTAL DR 1 <u>TTANCES, SOLID,C</u> YDRATE, CALCIUM TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST DO01.D003 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST PWC COST	23.94 4415 2665.04 00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 41.40 00	. v9 54 
TOTAL REC: 3096 12 08 94	0RDS: 13 USS COMTE DE GRASSE 1440542 DD 4342 6001 9538450 WV2 476 4027 Jacobs DE 0 0045 0RDS: 13	4240 00 179 1345 RQ WASTE OXIDIZING SUB BARIUM NYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID_C YDRATE, CALCIUM TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST CONTRACT COST DO01.D003 ORROSIVE.N.O.S.(CONT 1 HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST	23.94 <u>4419</u> <u>2665.04</u> <u>00</u> <u>843.95</u> <u>AINS</u> <u>M HYDRDXIDE</u> . <u>69</u> <u>41.40</u> <u>155.25</u> <u>69</u> <u>41.40</u> <u>00</u> <u>155.25</u>	- v9 54 
10TAL REC 3096 12 08 94	USS COMTE DE GRASSE 1440542 DD 4342 6001 9538450 Wyd 4742 4027 J De d 00447 OROS: 13	4240 00 179 1365 RO WASTE OXIDIZING SUB BARIUM NYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL DR STANCES, SOLID, C YORATE, CALCIUM TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST DOOI.DOO3 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST MRMHOUR COST CONTRACT COST	23.94 441) 2665.04 .00 843.95 AINS M HYDROXIDE. 69 41.40 .00 155.25 69 41.40 .00 155.25	. v9 54 
3096 12 08 94	0RDS: 13 USS COMTE DE GRASSE 1440542 D0 4342 6001 9538450 VVA 472 4027 J-177 De a 0241 0RDS: 13	4240 00 179 1345 R0 WASTE OXIDIZING SUB BARIUM HYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL DR 1 STANCES, SOLID, C YDRATE, CALCIUM TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PVC COST CONTRACT COST DOOI,DOO3 CONTRACT COST DOOI,DOO3 CONTRACT COST 57 C2 POUNDS RECEIVED PVC COST - MANHOUR COST - CONTRACT COST	23.94 441) 2665.04 .00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 41.40 .00 155.25	- v9 54 
707AL REC. 3094 12 08 94 	0RDS: 13 USS COMTE DE GRASSE 1440542 D0 4342 6001 9338450 WJA 772 4027 J-777 De a 0207 0RDS: 13	4240 00 179 1365 <u>R0 WASTE 0XIDIZING SUB</u> BARIUM HYDROXIDE OCTAH UN3085 5.1 OEA	TOTAL TOTAL TOTAL TOTAL TOTAL DR 1 1 STANCES, SOLID,C YDRATE, CALCIUM TOTAL TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST CONTRACT COST DO01.D003 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST	23.94 4415 2465.04 00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 41.40 155.25	- v9 54 
3096 3096 12 08 94	USS COMTE DE GRASSE           1440542           4342 6001           9538450           200 4702 0027           200 4702 0027           200 4702 0027           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702           200 4702	4240 00 179 1345 R0 WASTE 0X1012ING SUB BARIUM NYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID,C YDRATE, CALCIUM TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST CONTRACT COST DOOI.DOO3 ORROSIVE.N.O.S.(CONT I HYDRXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST	23.94 <u>4415</u> 2665.04 00 843.95 AINS M HYDRDXIDE. <u>69</u> 41.40 155.25 <u>69</u> 41.40 .00 155.25	- v9 54 
70TAL REC 3096 12 08 94 TOTAL REC	0RDS:       13         USS COMTE DE GRASSE         1440542       DD         4302 6001         9538450         xy2 470 4027         De d 00417         DRDS:       13	4240 00 179 1365 RO WASTE OXIDIZING SUB BARIUM NYDROXIDE OCTAH UN3085 5.1 OBA	TOTAL TOTAL TOTAL DR STANCES, SOLID, C YORATE, CALCIUM TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST DOOI.DOO3 ORROSIVE.N.O.S./CONT I HYDROXIDE. POTASSIL 57 C2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST	23.94 441) 2665.04 .00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 41.40 155.25	. v9 54
3096 2 08 94	0RDS: 13 USS COMTE DE GRASSE 1440542 D0 4342 6001 9538450 WV 47X 4027 J-177 DE 0 0247 0RDS: 13	4240 00 179 1365 R0 WASTE 0XIDIZING SUB BARIUM HYDROXIDE OCTAH UN3085 5.1 080	TOTAL TOTAL TOTAL DR 1 STANCES, SOLID, C YDRATE, CALCIUM TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PVC COST CONTRACT COST DOOI,DOO3 CORROSIVE,N.O.S.(CONT HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PVC COST - MANHOUR COST - CONTRACT COST	23.94 441) 2665.04 .00 843.95 AINS M HYDROXIDE. 69 41.40 155.25 69 41.40 .00 155.25	- v9 54
TOTAL REC. 3094 12 08 94 TOTAL REC	0RDS: 13 USS COMTE DE GRASSE 1440542 D0 4342 601 9538450 VJ.4.7% 4027 J-(**) De a 020 ; 0RDS: 13	4240 00 179 1365 R0 WASTE 0X1D121NG SUB BARIUM HYDROXIDE OCTAH UN3085 5.1 DEA	TOTAL TOTAL TOTAL TOTAL DR 1 STANCES, SOLID,C YDRATE, CALCIUM TOTAL TOTAL TOTAL TOTAL TOTAL	M2 POUNDS RECEIVED PWC COST CONTRACT COST CONTRACT COST DOOI.DOO3 ORROSIVE.N.O.S.(CONT I HYDROXIDE, POTASSIU 57 C2 POUNDS RECEIVED PWC COST MANHOUR COST CONTRACT COST	23.94 441) 2465.04 00 843.95 AINS MINSROXIDE. 69 41.40 155.25 69 41.40 00 155.25	. v9 54

						FPO UDSTE#	POUNDS PECETUES	
1	SORTED BY	JOB ORDER# TYPE	ITEM NOMENCLATURE			PWC TYPE SER.	COST FWC	, - · ·
		DOCUMENT# VESSEL	ADDITIONAL DESCRIPTION	ODUCT OTYZOF		CONTRACT TYPE SER. MANHOURS/SPILLS	COST CONTRACT	TATA: COST
	UHIE:	0KUN# 5205#						
	1787	USS COMTE DE GRASSE 1640542 DD	9999 0ily RAG5	56	1			
		4304 700Z					F	
			NOI REGULATEU	······································		58	4,40	
						<u>M6</u>	1.50	······
								5.00
	. 200	HCC COMTE DE CROSSE	0000 00 478 4717	86	1			
	1788	1640542 DD	DILY FILTERS			0		
		4304 7001	NOT REGULATED					
			Har Reddenred			58	4 40	
						m2	95	6. 3 <i>6</i> ,
	1968	USS COMTE DE GRASSE	9150	0M	9			=
	11 09 94	1640542 DD	HYDRAULIC FLUID			· ···		
		9530408-16	NOT REGULATED				3750	
		- i ++ u ++ 527017				57 M2	2250.00 712 50	
		- Alanderte B DV H J 2001	· · · · · · · · · · · · · · · · · · ·					2962.50
•								
	2572	USS COMTE DE GRASSE	9999 00 205 1711	86	2			
1	1 25 94	4321 7001	UILT RHGS					
			NOT REGULATED			50	50	
						M6	15.00	
								59.00
	(12)		0150 00 (01 5880					
	4125	1640542 DD	SYNTHETIC LUBRICATING		1			
		5025 7086 9522395					420	
		and to Demos				57	252 00	
		2.3.45 (5050-173.)			_	m2	79.80	331.80
					-			
			· · · · · · · · · · · · · · · · · · ·					
			· · · · · · · · · · · · · · · · · · ·					
			-					

Ţ

Z Z

ľ

SERVMART SHOPPING LIST FOR SERVMART NOB

Date 5191 Page 1 of 2

~

17

COMMAND USS SAIPAN LHA	- 2		REQUI	SITION N DRA	10. H Aft	FUND CODE
SIG CODE:	SUPP ADDRESS:		WOF	RK CENTER	ξ:	
COST CODE:	OBJ CLASS CODE:	ORG CO	DDE :	J	DB ORDER :	:
NSN	DESCRIPTION	ŬOľ	QTY	UNIT	EXTEND	LOC
6840-00-5261129	DISINFECTANT, IODINE BASE,	1GLBT	5	12.59	62.95	A006
0105 01 0040034	PAC TRASH SHP BRD 30 GL B	BIODBE	2	20.03	40.06	BAY2
8105-01-2842924	WAY DEMOVER 5GL CON HAZ	CN	5	12.41	62.05	BAY3
7930-00-0456912	DETERCENT SPRAY/WIPE 16 OZ	HAZBX	4	56.39	225.56	BAY4
7930-00-9265280	WAY NONBUFFING FLOOR, 5GL	HAZCN	5	29.21	146.05	BAY5
7930-01-1838585	WAA, NONBOITING, PLOCAT, SOL PAC DIASTIC 58" X 36", 57	GALBX	2	19.27	38.54	BAY5
8105-01-1839764	DOLICH METAL 2 LB/CN HAZ	CN	3	5.67	17.01	BC10
/920-00-8239818	POLISH, METRI, 2 DD, CR LIN	FERNPG	30	18.35	550.50	BC12
6135-00-6431310	DATTERY, O VOLT, BATTER 1	2EAPG	12	6.86	82.32	BC12
6135-00-8357210	POTTIE APPLICATOR 16 07	EA	20	0.90	18.00	BE10
8125-00-4887952	DAINT AFFORCAL WHITE /#17875	HAZBX	2	18.24	36.48	BG06
8010-00-0793762	DAINT AEROSOL, WHITH #17075	HAZPT	12	1.44	17.28	BG06
8010-00-5825382	FCO INP COLITAIRE	BX		99.00	495.00	BG15
7930-01-1775119	ECOLAR, SUBTRICE	DAK BX	5	65.00	325.00	BG15
/930-01-2368941	IIM DOIGONOUS - MATTER		5	00.00	525.00	2020
2020 01 02(0042	HM PUISONOUS - MAIILA	ВХ	6	109 00	654 00	BG16
7930-01-2368942	ECO-LAB, SPOI FREE NUTERFERE FIVE CALLON/CO	CN	5	33 67	168 35	BH04
6820-00-181/933	ANIIFREEZE, FIVE GALLON/CO		5	55.07	100.00	DITO I
	HM PUISONOUS - MAILER KNI	ситву	2	59 24	118 48	BTO3
7930-01-3633573	BIRSCH, SPRAI/BUTT BEUE MM	VI.REOT	72	7 27	523 44	BIXXXXXXX
6850-01-3840618	DEGREASER, IMPACI INDUSI./P		, <u>ר</u>	6 75	20 25	NOOS
8415-00-6345023	APRON, RUBBER, BLACK WITH I	AT DIA	2	91 98	275 94	0003
6850-01-3468259	DENGLI CUINA MADKED WUIT		1	1 76	1 76	0003
7510-00-2401525	PENCIL, CHINA MARKER, WHII	עם ב דים צ		1 76	1 76	0003
7510-00-2401526	PENCIL, CHINA MARKER, BLACI	ע גידר	10	1.70	111 10	SECURE 1
6135-00-9002139	BATIERY, 9VOLI, ENERGIZER (12	ZEA/PG	ΞŪ	5 11	27 20	SECURE 1
6135-00-985/845	BATTERY, AA ENERGIZER (24 P	באן אב דת שר	ر ۸	2 95	11 80	SECURE 1
7520-01-2074268	PEN, KULLEKBALL, FINE, BLA				11.00	
1-0-00-2-1-5-1	RAICHET, 174 DR. (4.25 1				275 11/1	31001
51-26-00-2306385	RALL HBI, DR. (	EA	1 -	20.04		-0001
		Tota	l thi	s page \$	4,062.8	4

0106-LF-063-8633 SPECIAL REQUEST NUTHORIZATION 0103-610-8000

MUSTER REPORT

										<u>ц</u>														
	JULIAN DATE	5180	FUND CODE	REGUIRING DEPT.												·				2- Bosu	ficer's Copy	E NAVY.		ED ON:
 	PAGE OF			EXTENSION	2712 60	517760	258 40	374 00	18 28	235 82	1980 00	15 80	36 00	105 00	506 20	173610			13155 78	made wo	i), GOLD - Supply Of	AL BUSINESS OF TH		Supply Officer's Signatu PECTED AND VERIFIE
	VTEGORY I	 -	REQUISITION NO.		CN 20 (35 63	CN \$0 (29 44	5L 10 25 84	FL 20 (8 70	PT 4 4 57	CN 15 15 72	61 20 89 00	or 2 7 90	GL 2 18 00	GL 10 10 50	GL ZU 25 31	CN 15 115 74				ER MT lus	K - Store's Copy (Optione	SSARY FOR THE OFFICI APPROVED BY:	A CV	ETED: RECEIVED, INSF
·	MATERIAL CA		. 2-	DESCRIPTION	HARE Gray	White Form 30 0	Red Stv. Dins	Blue Stripins	Orawy & Stripins	Thinker	MONCORUST COMT	Gold	PAINT Brown	PAWT BLOCK FLOIT	Gilay machinery	ReD DECK				GRADE OF AUTHORIZED SHOPPI	ELLOW - Mail to Ship/Activity, PINI	RIALS LISTED HEREON IS NEC'ES MATERIAL):	- 19-	HE FOLLOWING MUST BE COMPL
TSI SHOPPING I IST (AA44)	ORM 1312 (REV. 4-84)	01-3142	SS SAIPAN CHA	COG SYM AND NSN	8010-01-344-5309	8010-01-344-5322	8010-01-334-3002	8010-01-333-9820	8010-01-336-3981	8010-00-558-7026	8030-01-370-6234	8010-01-040-2286	8010-01-324-5087	2010-00-286-7854	8010-01-344-5317	8010-01-344-6700				R PRINTED NAME AND RANK OR	JTION: WHITE - Shopper's Copy, Y	Y THAT THE PURCHASE OF MATE TED BY (FOR DIRECT TURNOVER	Where	Authorized Signature ETURN TO THE SHIP/ACTIVITY, TH
AL NORS	NAVSUP F	S/N 0108/LF-B	EMIR ACT	HEM NO.	Ģ	2	ଜ	Ŷ	5	G	L.	<u>م</u>	69	Ø	2	. ev	6	¢	ሪ የ	TYPED O	F. DISTRIBL	I CERTIF		UPON RE

Sec. 1

# List of Authorized Hazardous Material Stowage Locations

•

f

This list will list all of the <u>authorized</u> shipboard locations where Hazardous Material (HM) is stored, and includes in-use materials, lockers, storerooms, and issue rooms. This list is a locally developed form.

LOCATION	TYPE STORAGE	RE MATERIALS	SPONSIBLE DIVISION
2-9-1-A	GENERAL HM STOREROOM	ACID/GREASE SOLVENTS/TOXIC	SS01
2-17-1-K	FLAM LIQUID STOREROOM	OIL/PAINT/ALCOHOL	SSO1
3-49-1-A	DRY STOREROOM	ABSORBANT CLAY/DECK UNDERLAYMENT	SS01
4-57.5-2-L	GENERAL HM STOREROOM	CLEANING/ DECK CHEMICALS	SS01
5-57-1-A	GENERAL HM STOREROOM	REPRODUCTIVE EQUIP CHEMICALS/ PMLs/ OBA CANNISTERS	SS01
3-58-2-A	GENERAL HM STOREROOM	CLEANING CHEMICALS	SS01
5-75-8-A	ACID STOREROOM	ACID/ SODIUM BICARB	SS01
5-73-1-A	GENERAL HM STOREROOM	SCULLERY CHEMICALS	SS02
3-73-4-A	BARBER SHOP STOREROOM	BARBER SHOP CHEMICAL	S SS03
4-73-0-Q	LAUNDRY CHEMICAL IN-USE BINS	IN-USE LAUNDRY CHEMICALS	SS03
5-73-4-A	LAUNDRY STOREROOM	LAUNDRY CHEMICALS	SS03
4-76-2-Q	DRY CLEANING PLANT	IN-USE DRY CLEANING COMPOUND	SS03
01-94-2-Q	GENERAL HM STOREROOM	PHOTO/REPRODUCTIVE EQUIPMENT CHEMICALS	SS09
1-101-3-Q	HM ISSUE OFFICE	GREASE/ CLEANING CHEMICALS	SS09

Enclosure 2

3-110-2-K	FLAM LIQUID STOREROOM	GREASE/OILS/ALCOHOL/ SOLVENTS/PENETRANTS	SS09
1-114-1-K	FLAM LIQUID STOREROOM	FLAMMABLE LIQUIDS/ SPRAY PAINT/ AEROSOLS	SS09
1-67-0-Q	MACHINE SHOP	METAL CUTTING AND INSPECTION CHEMICALS	EA09
1-75-0-Q	BATTERY SHOP	BATTERY ACID	EE02
6-65-0-E	FORWARD MMR	HYDRAZENE IN-USE	EB14
4-69-2-A	ENGINEERING HM STOREROOM	WATER ANALYSIS/ TREATMENT CHEMICALS CALCIUM HYPOCHLORITE	EB14
2-68-2-A	ENGINEERING OIL LAB	OIL/WATER ANALYSIS CHEMICALS	EB14
2-71-4-L	ACID LOCKER	ACID/REAGENTS MERCURIC NITRATE	EB14
3-71-2-A	ENGINEERING HM STOREROOM	WATER ANALYSIS/ TREATMENT CHEMICALS	EB14
6-81-0-E	AFT MMR	HYDRAZENE IN-USE	EB14
01-81-2-A	MEDICAL STORES AND FLAM LOCKER	X-RAY/MEDICAL CHEMICALS	MH01
1-122-1-Q	POWER PLANTS SHOP	OIL ANALYSIS CHEMICALS	IM02
1-127-2-Q	AIR FRAMES WORK CTR	METAL CUTTING/CLEANING/ INSPECTION CHEMICALS	IM02
2-1-1-K	FLAM LIQUID STOREROOM	PAINT/ AEROSOL INSECTICIDES	DA01
2-1-2-Q	PAINT MIXING/	PAINT/EPOXY	DA01
5-77-0-Q	PRINT SHOP	REPRODUCTIVE EQUIP CHEMICALS	XPÚl
04-82.5-1-Q	PHOTO LAB	PHOTO CHEMICALS	OP01
LWR VEHICLE DECK	GENERAL EQUIP/PARTS STOWAGE	AFFF/FIRE RESISTANT HYDRAULIC FLUID	ENG

0

Ĵ

J

ł

Enclosure 2

HALARPOUS INVENTORY CONTROL SYSTEM

# master liez - Location Sequence, All Items

#### LEST ALL NSNS

h I f 6 f 1 - 5 Page : f 7 / 1 1 , 9 5

Pari Number	NSh		Nomenclatu	NE		Wilitary Spec.	Paice Per 1/S	QLy On Hand	¥/P ===	U/I =====
Location C/A Qly	Lor 	High W ====	Weight I/S V	olune 1/5 ======	V0C ===	Remanti 				
46 <b>41</b> 31 a	MSA 20	-	BLACK RESP 1.00 OZ	IRATOR CART 1.00	TRIGES I	ONLV GOOD FOR & HRS	1.11	61	1	
DIHONA CHENICAL 1-101-3-Q 0	79 <b>38 -88 -</b> 45	59-2247 5	OVEN CLEANI 8.00 oz	ER 1.50 QT	1	TVPE II TE	1.11	3	1	CN
OCTIGON F1F001 0	681 <b>0-00</b> -20 5	64-6618 15	SODIUM BIC. 1.00 LB	ARBONATE, I 1.51 QT	TECH	TVPE 11 00	1.11	5	1	BX
LHB INDUSTRIES F1F001 8	7510-01-07 4	70-2806 12	CORRECTION 8.00 OZ	FLUID (WH 0.50 QT	iite) Ø	REINSPECT 00	0.00	8	0	
STEVEN INDUSTRIES F1F002 87	8030-01-04 50	41-1596 100	CORROSION 16.00 CZ	PR <b>EVEN</b> TIVE 0.50 QT	COMP Ø	NIL-C-85054A T4 TYPE 2 -T7 REINSI	0.00 PECT 07/98	87	0	CN
EVEREADY F1F003 7	6135-00-12 5	20-1028 10	BATTERY, C 16.00 OZ	SIZE 0.50 QT	0		0.00	7	0	BATT
SILICA GEL F1F007 2	6685-00-75 1	52-8240 5	HUMIDITY I 16.00 OZ	NDICATOR 0.50 QT	0	TYPE II 00	0.00	2	0	CN
F1F007 1	6685-00-75 0	57 <b>-824</b> 0 2	HUMIDITY II 8.00 LB	NDICATOR 1.00 GL	0	INSPECT 00	0.00	1	Ø	
SAVIN F1F007 56	6850-01-34 45	18-3087 60	DEVELOPER 6.00 OZ	CLASS II & 0.50 QT	III 0	TYPE II 00	0.00	56	0	BT
DIXON COMPANY F1F007 1	9075-00-27 0	72-9256 3	CHALK, CAR 1.00 OZ	PENTERS 0.00 GL	0	TYPE II 00 NO REINSP	0.00 ECTION	1	0	
ANCO CHENICAL, CORP F1F008 0	6810-00-27 1	70-9989 5	TALC, TECH 16.00 OZ	, POWDER FO 0.50 QT	ORM Ø	TYPE II 00	0.00	3	0	CN
ATLANTIC CHENICAL CO F1F008 0	8510-00-81 5	17-0295 15	TALCUM POW 16.00 OZ	DER 0.50 QT	0	00	0.00	8	0	BT
ALLIED ENTERPRS INC F1F009 39	6550-01-38 15	34-0618 40	IMPACT CON 12.00 OZ	CENTRATE 0.25 QT	0	F1F009/SHOP	131.71	39	Ø	BT

HI0601-5 07/11/95			ΗA	ZAEDO Nas	USINVE terlist – I	S N T O R Jocation List All	YCO Sequence NSNs	NTROLS e, All Itens	YSTBM			Page:
Part Number		NSN		Nomen	clature		Н1	Llitary Spec.	Price Per I/S	Qty On Hand	V/F ===	U/I
Location	 C/A Qty 	LOR	High =====	Weight I/S	Volume I	[/S VOC	Renari	(S ====================================				
HP 92274A F1F010	0	7520-LL 10	-002-075: 50	2 TONER 1.00 OZ	CARTRIDGE 1.00	GL 0	HF RETAIN	2-4L I BOX/PACKAGE	59.00 STICKER WHEN	27 SWAPPING	0 OUT/ TYI	EA Pe II 0
XEROX F1F011	 4	6850-01 1	-256-1116 5	5 DEVEL( 11.00 OZ	OPER 1048 0.50	QT 0	00		0.00	4	0	BX
POLY RESEARCH P1F015	CORP. 7	6810-01 10	-304-537: 20	3 HYDRA 9.00 LB	ZINE 7% SOLU 1.00	ITION GL Ø	REINSP	PECT 12/95	0.00	7	0	BT
F1F021	2	6140-01 5	-131-969( 20	5 BATTRI 16.00 OZ	RY, WET 0.50	QT 0	TPYE I	. 9/95	0.00	2	0	BATT
OCTAGON PROCES F1F022	SS INC. 20	6850-01 15	-287-806 30	7 CORRO 5.00 LB	SION INHIBIT 1.00	'OR LQD GL Ø	MI TYPE I	L-A-53009 I 00	0.00	20	0	CN
15080 F1F024	0	8010-00 1	-721-9747 10	7 PAINT 16.00 CZ	BLUE SPRAY 0.50	QT 0	TYPE I	I T6	0.00	0	0	CN
F1F024	3	8010-00 1	-935-707: 5	1 FAINT 16.00 OZ	LACQUER ACR 0.50	YLIC GRE QT 0	NI T6 REI	L-L-81352 NSP 11-96	6.31	13	0	QT
ECO SURE F1F024	1	8010-01 1	-331-6107 15	7 PAINT 16.00 OZ	GLOSS BLACK 0.50	SPRAY QT Ø	A- TYPE I	A-2787 T4 REINSF 2	0.00 -96	1	0	CN
ECO-SURE F1F024	5	8010-01 10	-331-6114 15	1 PAINT 16.00 OZ	GLOSS YELLO 0.50	W SPRAY QT Ø	TYPE I	I T4 REINSP	0.00 11-96	5	0	CN
ECO SURE F1F025	0	8010-00 1	-079-3762 5	PAINT 16.00 OZ	GLOSS WHITE 0.50	SPRAY QT Ø	TYPE I	I T6 24 HORT	0.00 HS	0	0	CN
SO SURE P1F025	2	8010-00 10	-141-2951 15	PAINT 16.00 OZ	DARK GREEN 0.50	SPRAY QT Ø	T6 REI	NSP 5-96	0.00	2	0	CN
F1F025	13	8010-00 1	-935-7085 15	PAINT 13.00 OZ	GRAY SPRAY C.00	QT Ø	HI	L-L-81352	0.00	13	0	CN
SO SURE F1F025	50	8010-00 30	-941-8712 55	PAINT 11.50 OZ	OLIVE DRAB 0.50	SPRAY QT Ø	NI REINSP	L-L-19538 ECT 12/95	0.00	50	0	CN

ge: 2

I.

H10601-5 07/11/95	H A	ZARDGUS INVENTO Naster list - Locatio List A	RY CONTROLS n Sequence , All Items .ll NSNs	YSTEN			Fage
Part Number	RSR	Nomenclature	Nilitary Spec.	Price Per I/S	Qty On Hand ======	V/E ===	U/I
Location C/A Qty	Low High	Weight I/S Volume I/S V	VOC Remarks				
CARDINAL IND. FIN. F1F025 15	8010-01-332-374 10 20	3 PAINT GLOSS BEIGE ENAME 10.00 OZ 0.50 QT	L A-A-2787 0 TYPE II T4 REINSP 1	0.00 2-96	15	0	CN
KYOCERA CORP. F1F026 4	7530-00-F01-446 1 5	6 DRUMKIT DK-3 5.00 LB 2.00 GL	0 TYPE II 00	0.00	4	0	BX
AMERICAN GAS/CHEM CO F1F031 2	) 6850-00-142-884 2 1 5	0 REMOVER, INSPECTION PEN 12.00 OZ 0.50 QT	1. MIL-1-25135D 0 REINSPECT 7/97	0.00	2	0	CN
SO SURE P1P031 6	6850-00-973-909 5 5 10	1 FLUID PENETRATING 10.00 OZ 0.50 QT	0 REINSPECT 4/96	0.00	6	0	CN
STEVEN INDUSTRIES F1F032 4	8040-00-444-875 5 10	2 ADHESIVE SPRAY 19.00 OZ 0.50 QT	0 REINSPECT 1/96	0.00	4	0	CN
SAVIN F1F033 @	6850-00-333-485 5 20	8 TONER CLASS III 1.00 LB 1.50 QT	0 00	0.00	9	0	BT
UNI-KEN F1F036 21	9150-00-823-786 1 10 30	0 DIMETHYLSILICONE COMPO 16.00 OZ 0.50 QT	UND 0 TYPE II 00	0.00	21	0	CK
STEVEN INDUSTRIES F1F037 17	8030-00-546-863 7 15 20	7 CORROSION PREVENTIVE C 16.00 OZ 0.50 QT	OMP NIL-C-81309D 0 REINSPECT 1/96	0.00	17	0	CN
F1F038 17	8030-00-938-194 7 10 20	7 CORROSION PREVENTIVE C 16.00 OZ 0.50 QT	OMF MIL-C-81309D 0 REINSPECT 7/96 TYP	0.00 PE II	17	6	CN
NOCO F1F039 22	8030-01-008-305 2 15 20	8 BATTERY, CORR PREV. SP 16.00 OZ 0.50 QT	RAY 0 TYPE II T4 REINSH	0.00 PCT 07/96	22	0	CN
UNI-KEM INT'L INC P1F039 21	9510-00-823-786 1 12 23	0 LUBRICATING COMPOUND 16.00 OZ 1.00 GL	0 TYPE II T4 REINSPR	0.00 SCT 08/96	21	0	
SAVIN F1F040 J	6850-01-256-111 1 10	.1 TONER SAVIN 11.60 OZ 0.50 QT	C TYPE II OC	0.00	1	0	BT
UNI-KEN INT'L INC. F1P042 21	9150-00-823-780 1 10 25	50 LUBRICATING COMP DIMET 16.00 CZ 0.50 QT	HYL 0 TYPE II 00	0.00	21	0	CN

!

Part Number         NSB         Research autre         Nilitary Spec.         Per L/S         OC           Location         C/A Qty         Los High Weight L/S         Volues L/S         VOC Remarks	HI0601-5 07/11/95				ΗÅ	ZARDO Nas	USINV ster list -	E N T Locati List	OR on S All	Y CONTROL SY Gequence , All Items NSNs	STEN			Page	: 4
Section         C/A QUY         Low         High         Weight I/S         Volume I/S         VOL Remarks           XEROX         6650-01-164-5735         FUSER LURERLANT         0.00         20         0         ET           FIT043         0         5         20         1.00 LE         200.00 QT         0         00         12         0         ET           SAVIN         6650-01-256-1094         FUSER OIL         0.00         12         0         ET           FIP044         12         5         15         16.00 OC         0.50 QT         C         TYPE II 00         0         0         0         D         0         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D	Part Numb	er	NSN			Nonei	nclature			Military Spec.	Price Per I/S	Qty On Hand	V/P	U/I •••••	
IEROI         6559-01-161-5738         FUSER LURRICANY         0.00         20         0         ET           SATIN         6659-01-256-1094         FUSER OIL         0.50 QT         0         00         12         0         ET           SATIN         6659-01-256-1094         FUSER OIL         0.50 QT         0         TYPE II 00         0.00         12         0         ET           CROSSFIELD PROD CORF 5610-00-827-1652         PAINT PLACK SPRAY         0.00         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <td>Location</td> <td>C/A Q1</td> <td>τς τς τς</td> <td>TOA</td> <td>High ====</td> <td>Weight I/S</td> <td>5 Volume =======</td> <td>I/S</td> <td>VOC ===</td> <td>Remarks</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Location	C/A Q1	τς τς τς	TOA	High ====	Weight I/S	5 Volume =======	I/S	VOC ===	Remarks					
SAVIN         6850-01-255-1094         FUSER OIL         0.00         12         0 ET           FIF044         12         5         15         16.00 OZ         0.50 QT         C TYFE II 00         0         0         0         BAUS           CROSSFIELD FROD CORF 5610-00-827-1652         PAINT DECK COVERING         HIL-D-3134-G         0.00         1         0         BAGS           F17051         0         5         20         36.00 LB         5.00 GL         0         TYFE II 00         0         0         0         BAGS           P1724         6         1         15         12.25 CZ         0.00 CL         0         TYFE JI T4 12 MONTHS         0.00         0         0         0         0         CN           9150-00-985-7316         GREASE GENERAL PURCOSE         NIL-G-23549C         0.00         3         0         CN           F2F         3         1         10         1.75 LB         0.00 QT         0         REINSP 5-96         0.00         0         CN           GOVERNMENT CONTRACT         6310-00-233-9119         NAPHTHA, ALIPHATHIC         TT-N 95E         0.00         1         0         CN           CSD INC         8010-01-200-2637         THINNER AIRCRAF	XEROX F1F043		685 0	0-01- 5	-164-573 20	8 FUSEI 1.00 LI	LUBRICANT	) QT	0	00	0.00	20	C	BT	
CROSSFIELD PROD CORP 5610-00-827-1652         PAINT DECK COVERING         HIL-D-3134-G         0.00         1         0         BAGS           PIP051         0         5         20         38.00 LB         5.00 GL         0         TYPE II 00         1         0         BAGS           PIP051         0         5         20         38.00 LB         5.00 GL         0         TYPE II 00         1         0         BAGS           PIP24         6         1         15         12.25 02         0.00 GL         0         TYPE II T4 12 MONTHS         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	SAVIN P1P044		685 12	0-01- 5	-256-109 15	1 FUSEI 16.00 C	01L 1 0.50	) QT	C	TYPE II 00	0.00	12	0	BT	
8010-01-331-6108         PAINT FLAT BLACK SPRAY         0.00         6         0           P1F24         6         1         15         12.25 0Z         0.00 GL         C TYPE II T4 12 MORTHS           9150-00-985-7316         GREASE GENERAL PURPOSE         MIL-G-23549C         0.00         3         0         CN           Y2F         3         1         0         1.75 LB         0.00 QT         0         REINSP 5-96         0.00         7         0         CN           HLLYARD INDUSTRIES         7930-01-183-8585         FLOOR FOLISH, NONBUPFING         0.00         7         0         CN           GOVERNMENT CONTRACT 6810-00-235-9119         NAPHTHA, ALIPHATHIC         TT-N 95E         0.00         1         0         CH           VEZT02         1         1         5         9.00 LE         1.00 GL         0         TYPE II T7 REINSP. 6/98 HC-P         CSD         NC         8010-00-181-8080         THINNER AIRCRAFT COATING         MIL-T-81722         0.00         3         0         CN           F2T202         3         1         5         9.00 LE         1.00 GL         0         REINSP. 5/98 HC-P         CH         PUNA TRCH         8010-01-200-2637         THINNER AIRCRAFT COATING         WIL-T-81722	CROSSPIEL F17051	D PROD CO	RF 561 Ø	0-00- 5	-827-165 20	2 PAIN 38.00 LI	DECK COVER	(ING ) GL	0	HIL-D-3134-G TYPE II 00	0.00	1	0	BAGS	
9150-00-985-7316         GREASE GENERAL PURFOSE         HIL-G-23549C         0.00         3         0         CN           F2F         3         1         10         1.75 LB         0.00 QT         0         REINSP 5-96         0.00         3         0         CN           HILLVARD INDUSTRIES         7930-01-183-8585         FLOOR POLISH, NONBUFFING         0.00         7         0         CN           F2F201         7         5         20         40.00 LE         5.00 GL         0         TYPE 2 T6 REINSPECT 6/96 MAN. 6/94 HC=T         0           GOVERNMENT CONTRACT         6810-00-235-8119         NAPHTHA, ALIPHATHIC         TT-N 95E         0.00         1         0         CN           V2T202         1         1         5         9.00 LE         1.00 GL         0         TYPE II T7 REINSP. 6/98 HC=P         0.00         3         0         CN           CSD INC         8010-00-181-8080         THINNER AIRCRAFT COATING         MIL-T-81722         0.00         3         0         CN           F2F202         3         1         5         9.00 LE         1.00 GL         0         REINSP. 9/96 HC=P         0.00         1         0         CN           F2F202         1         5	F1F24		801 6	0-01- 1	-331-610 15	B PAIN 12.25 C	FLAT BLACK	SPRAY GL	6	TYPE II T4 12 MONTHS	0.00	6	0		
HILLYARD INDUSTRIES       7930-01-183-8585       FLOOR FOLISH, NONBUFFING       0.06       7       0       CN         F2Z201       7       5       20       40.00 LE       5.00 GL       0       TYPE 2 T6 REINSPECT 6/96 MAN. 6/94 HC=T       0       0       CN         GOVERNMENT CONTRACT       6810-00-235-8119       NAFHTHA, ALIPHATHIC       TT-N 95E       0.00       1       0       CN         Y2F202       1       1       5       9.00 LE       1.00 GL       0       TYPE 1I T7 REINSP. 6/98 HC=F       0       0       CN         CSD INC       8010-00-181-8080       THINNER AIRCRAFT COATING       NIL-T-81722       0.00       3       0       CN         F2F202       3       1       5       9.00 LE       1.00 GL       0       REINSP. 9/96 HC=F       0       0       0       CN         F2F202       3       1       5       9.00 LE       1.00 GL       0       REINSP. 9/96 HC=F       0       0       0       CN         F2F202       1       1       5       9.00 LE       1.00 GL       0       REINSP. 2/97 HC=F       0       0       0       CN         EULK CHEH       9150-00-024-9624       FLUID DAMPING       0.50 QT	F2F		915 3	0-00- 1	-985-731 10	6 GREAS 1.75 LI	SE GENERAL P 0.00	PURPOSE QT	0	NIL-G-23549C REINSP 5-96	0.00	3	0	CN	
GOVERNMENT CONTRACT       6810-00-238-8119       NAPHTHA, ALIFHATHIC       TT-N 95E       0.00       1       6       CN         Y2702       1       1       5       9.00 LE       1.00 GL       0       TYPE II T7 REINSP. 6/98 HC=F       0         CSD INC       8010-00-181-8080       THINNER AIRCRAFT COATING       MIL-T-81722       0.00       3       0       CN         F2F202       3       1       5       9.00 LE       1.03 GL       6       REINSF. 9/96 HC=F       0.00       3       0       CN         PUNA TECH       8010-01-200-2637       THINNER AIRCRAFT COATING       VV-D-1078E       0.00       1       0       CN         PUNA TECH       8010-01-200-2637       THINNER AIRCRAFT COATING       VV-D-1078E       0.00       1       0       CN         P12F202       1       1       5       9.00 LE       1.00 GL       0       REINSP. 2/97 HC=F       0.00       2       0       CN         EULK CHEN       9150-00-024-9624       FLUID DANPING       0.50 QT       0       REINSP. 6/97 HC=F       0.00       2       0       CN         AMERICAN WRITING INK 9150-00-231-9045       OIL LUERICATING G. P.       VV-L-800       0.00       5       0       CN<	HILLYARD : F2F201	INDUSTRIES	5 793 7	0-01- 5	-183-858! 20	5 PLOOF 40.00 Li	POLISH, NO 5.00	NBUFFI GL	NG Ø	TYPE 2 T6 REINSPECT	0.00 6/96 MAN. 6	7 6/94 HC=T	0	CN	
CSD INC       8010-00-181-8080       THINNER AIRCRAFT COATING       NIL-T-81722       0.00       3       0       CN         F2F202       3       1       5       9.00 LE       1.00 GL       0       REINSF. 9/96 HC=F       0.00       3       0       CN         FUNA TECH       8010-01-200-2637       THINNER AIRCRAFT COATING       VV-D-1078E       0.00       1       0       CN         F2F202       1       1       5       9.00 LE       1.00 GL       0       REINSP. 2/97 HC=F       0.00       2       0       CN         EULK CHEN       9150-00-024-9624       FLUID DANPING       0.00       2       0       CN         F2F202       2       1       5       1.00 LB       0.50 QT       0       REINSP. 6/97 HC=F       0.00       2       0       CN         MERICAN WRITING INK 9150-00-231-9045       OIL LUBRICATING G. F.       VV-L-800       0.00       5       0       CN         Y2F202       5       3       5       5.00 LB       1.00 GL       0       TYPE II T7 REINS. 3/97       0.00       1       0       CN	governmen' F 2F 202	T CONTRACT	f 681 1	0-00- 1	-238-811 5	9 NAPH1 9.00 LE	'HA, ALIPHAT 1.00	'HIC GL	g	TT-N 95B TYPE II T7 REINSP. 6	0.00 /98 HC=F	1	C	CN	
FUNA TECH       8010-01-200-2637       THINNER AIRCRAFT COATING       VV-D-1078E       0.00       1       0       CN         F2F202       1       1       5       9.00 LE       1.00 GL       0       REINSP. 2/97 HC=F       0.00       2       0       CN         BULK CHEN       9150-00-024-9624       FLUID DANPING       0.50 QT       0       REINSP. 6/97 HC=F       0.00       2       0       CN         F2F202       2       1       5       1.00 LB       0.50 QT       0       REINSP. 6/97 HC=F       0.00       5       0       CN         AMERICAN WRITING INK 9150-00-231-9045       OIL LUBRICATING G. F.       VV-L-800       0.00       5       0       CN         Y2F202       5       3       5       5.00 LB       1.00 GL       0       TYPE II T7 REINS. 3/97       0.00       1       0       CN	CSD INC F2F202		801 3	0-00- 1	181-8086 5	C THINN 9.0C LE	ER AIRCRAFT	COATI GL	NG C	NIL-T-81722 REINSF. 9/96 HC=P	0.00	3	0	CN	
BULK CHEN         9150-00-024-9624         FLUID DANPING         0.00         2         0         CN           F2F202         2         1         5         1.00 LB         0.50 QT         0         REINSP. 6/97 HC=F         0.00         2         0         CN           AMERICAN MRITING INK 9150-00-231-9045         OIL LUBRICATING G. F.         VV-L-800         0.00         5         0         CN           Y2F202         5         3         5         5.00 LB         1.00 GL         0         TYPE II T7 REINS. 3/97         0.00         1         0         CN	PUNA TECH F2F202	<b></b>	801 1	0-01- 1	200-263 5	7 THINN 9.00 Le	ER AIRCRAFT	COATI GL	NG Q	VV-D-1078B REINSP. 2/97 HC=F	0.00	1	0	CN	
AMERICAN WRITING INK 9150-00-231-9045         OIL LUBRICATING G. F.         VV-L-800         0.00         5         0         CN           Y2F202         5         3         5         5.00 LB         1.00 GL         0         TYPE II T7 REINS. 3/97           TINLAND PACKAGING         9150-01-056-7346         FLUID DAMPING         0.00         1         0         CN	BULK CHEN F2F202		915( 2	)-00- 1	024-9624 5	FLUID 1.00 LE	DANPING 0.50	QT	0	REINSP. 6/97 HC=F	0.00	2	0	CN	
THLAND PACKAGING 9150-01-056-7346 FLUID DAMPING 0.00 1 0 CN	AMERICAN N P2P202	RITING IN	K 915 5	0-00- 3	231-9045 5	i OIL I 5.00 LB	UBRICATING 1.00	G. F. GL	0	VV-L-800 TYPE II T7 REINS. 3/	0.00 97	5	0	CN	
F2F202 1 1 5 9.00 LB 1.00 GL 0 REINSF. 6-97 HC=F	INLAND PAC P2P202	CKAGING	9150 1	 )-01- 1	056-7346 5	FLUID 9.00 LB	DAMPING 1.00	GL	0	REINSP. 6-97 HC=F	0.00	1	0	CN	
OCTAGON FROCESS INC 9150-00-152-4117 OIL LUBE ENGINE SAE 30 HIL-L-2104E 0.00 3 0 CN F2F203 3 1 5 1.00 LB 1.00 QT 0 TYPE 2 REINSP. 6/97 HC=F	OCTAGON FR F2F203	ROCESS INC	9150 3	)-00- 1	152-4117 5	' OIL L 1.00 LB	UBE ENGINE 1.00	SAE 30 QT	0	MIL-L-2104E TYPE 2 REINSP. 6/97	0.00 HC=F	3	0	CN	

H	A	5	Å	R	Ľ	ĵ	IJ	S	Ì	ĸ	۲	E	K	<b>ار</b> ا	C	F.	ï	С	C	ĸ	Ţ	E	C	L	S	ï	S	1	Б	K	
					l	la	st	er	lis	st	-	Ŀ	506	it:	101	1	ieq	uel	106	<u> </u>	, 2	11		[tei	as						

HI0631-5 07/11/95

.

List All NSNs

Part Number		NSK		Nomencla	ture		Military Spec.	Price Per I/S	Qty On Hand	V/P ===	U/I
Location C/A	oty 2==	Low	High ====	Weight I/S	Volume I/S	VOC	Remarks				
IMPERIAL OIL CO 72P203	4	9150-00- 1	188-9858 5	OIL LUBE 40.00 LE	ENGINE SAE 3 5.00 GL	0 0	MIL-L-2104E TYPE 2 REINSP. 6/97 1	0.00 HC=P	4	Ç	CN
IMPERIAL OIL CO F2F204	4	9150-00- 1	235-9061 5	OIL LUBE 40.00 LE	STEAM TURBIN 5.00 GL	B 0	MIL-L-17331H TYPE II REINSP. 8/95	0.00 HC=P	4	ę	CN
PHIFPS PRODUCTION P2F205	1	6810-00- 1	275-6010	) METHANOL 40.00 LB	5.00 GL	0	TYPE II REINSP. 6/97	19.46 HC=F	1	9	CN
CSD INC F2F205	1	6810-00- 1	984-4070 1	) XYLENE T 40.00 LB	ECHNICAL 5.00 GL	0	TYPE II REINSP. 6/98	0.00 HC=P	1	G	CN
FHIFPS FROD CORF F2F207	1	6810-00- 5	476-5612 20	TRICHLOR 1.00 LE	OETHANE INHIE 5.00 GL	ITED Ø	NIL-T-81533-A TYPE II 00	67.85	1	0	CN
DCTAGON PROCESS F2F207	3	6810-00- 1	476-5612 5	CLEANING 40.00 LB	COMPOUND TRI 5.00 GL	CH C	NIL-T-81533A HC=T REINSPECT 06/	0.00 98	3	Q	CN
BIOTEK F2F207	1	6350-01- 1	277-059 1	6 CLEANING 40.00 LB	COMPOUND HIS 5.00 GL	0LV Ø	REINSP. 6/96	0.00	1	0	Cr
DIAMOND CHENICAL F2F208	C0 10	7930-00- 1	045-6912 5	PLOOR PO 40.00 LB	LISH REMOVER 5.00 GL	0	A-A-861 REINSP. 12/96 HC=T	0.00 REINSP.	10 02/97	0	CN
HOME OIL COMPANY F2F209	3	6850-00- 1	274-542: 5	1 DRY CLEA 40.00 LB	NING SOLVENT 5.00 GL	0	PD-680 REINSP. 9/96 HC=F	0.00	3	0	CN
CSD INC F2F209	1	6850-00- 1	274-542: 5	DRY CLEA 40.00 LB	NING SOLVENT 5.00 GL	0	PD-680 REINSF. 6/98 HC=F	0.00	1	C	CN
OCTAGON PROCESS P2P209	1	6850-00- 1	-274-542 5	1 DRY CLEA 40.00 LB	ANING SOLVENT 5.00 GL	0	PD-680 REINSP. 6/98 HC=F	0.00	1	0	CR
UNOCAL F2F209	 0	6850-00- 1	-274-542 5	1 DRY CLEA 40.00 LB	NING SOLVENT 5.00 GL	0	HISOLV 140 REINSP. 6/98 HC=F	0.00	0	0	CN
F2F212	1	8030-00- 1	-272-853 5	0 GUN SLU 40.00 LE	SHING COMPOUNI 5.00 GL	D Ø	MIL-C-18487A REINSPECT 6/98 HC=F	0.00 / TYPE II T	1 7	Q	CN

Fage: 5

HI0601-5 07/11/95				ΗÅ	Z A R D C U : Master	5 INVEN rlist-Loc Li	TOR ation S st All	Y CONTROLSY Sequence, All Items NSNs	STEN			Page:
Part Number			NSN		Nomencla	ature		Military Spec.	Price Per I/S	Qty On Hand	V/F ===	U/I
Location	C/A ====	Qty ===	Free	High ====	Weight I.S =======	Volume I/S	VOC ===	Renarks				
ERAY OIL CO I F2F212	INC	19	9150~00- 5	687-4241 20	1 OIL LUB 32.00 OZ	SEMI FLUID 1.00 QT	0	MIL-L-46000E TYPE 2 REINSP. 6/97	0.00	19	0	CN
HATCO CORP P2F212		1	9150-00- 1	985-7099 5	9 OIL LUBI 32.00 CZ	ACFT TURBO 1.00 QT	SHAFT Ø	NIL-L-23699C TYPE II REINSP. 6/98	0.00	1	Ç	CN
ROYAL LUBRIC F2F212	ANTS	CO 18	9150-01- 15	082-8369 20	9 OIL LUBI 32.00 OZ	ACFT TURE 1.00 QT	ENG SY 0	TYPE 2 T7 REINSF. 6/9	0.00 8	18	Ø	CN
F2F213		1	8030-00- 1	244-1293 3	3 CORROSIO 40.00 LB	N PREVENTIV 5.00 GL	E CONP 0	HC=F REINSPECT 06/98	0.00	1	0	CN
IMPERIAL F2F213			9150-01- 1	035-5395 5	5 OIL LUBI 40.00 LB	GEAR 5.00 GL	0	NIL-L-2105D REINSPECT 6/97	0.00	1	Q	CN
OCTAGON PROCE P2P213	ISS C	0 20	9150-01- 10	048-4591 30	OIL LUBE	GEAR 1.00 QT	0	NIL-L-2105C TYPE II REINSPECT 6/9	3.75 7	20	Ø	CN
SHELL OIL CO F2F214		2	9150-01- 1	035-5393 10	3 OIL LUBI 40.00 LE	GEAR 5.00 GL	0	NIL-L-2105D TYPE II REINSPECT 8/9	24.72 6 HC=F	2	0	CN
MICRO CARE CO F2F216	)RP	25	6850-00- 20	319-0834 30	CLEANING 9.00 LE	COMPOUND T 1.00 GL	RICH Ø	MIL-C-81302D TYPE II REINSPECT 6/9	0.00 8 HC=F (OKXX	25 (3)	0	CN
CSD INC P2P218		e	6810-00- 1	286-5435 5	5 ALCOHOL 8.00 LB	ISOPROPYL 1.00 GL	0	TT-I-735 REINSPECT 6/98 HC=F	0.00	0	0	CN
RCYAL LUBRICA F2F218	TING	C0 1	9150-00- 1	265-9417 5	OIL LUBE 8.00 LE	GEAR 1.00 GL	0	MIL-L-6086C REINSFECT 6/98 HC=F	0.00	1	0	CN
LHB INDUSTRIE F2F219	10	3	8030-00- 1	213-3279 5	CORROSIC 8.00 LB	N PREVENTIV 1.00 GL	E CONF Ø	NIL-C-81309D REINSPECT 8/95	0.00	3	0	CN
ASHLAND OIL I P2F219	NC		8030-00- 1	244-1297 5	CORROSIC 8.00 LB	N PREVENTIV 1.00 GL	E CONP C	MIL-C-16173D REINSPECT 12/96	0.00	1	0	CN
CSD INC F2F221		1	8010-00- 1	221-0611 5	OIL LINS 8.00 LB	EED RAM 1.00 GL	0	A-A-379A TYPE II REINSPECT 12/	0.00 95	1	0	CN

e: 6

2. 20 K 3.
HI0601-5 07/11/95

# HACAEDOUS INVENTORY CONTROL SYSTEM Master list - Location Sequence , All Items

List All NSMs

Part Number		NSR 		Nomenclat	SUTE		Nilitary Spec.	Price Per I/S =======	Qty Cn Hand ======	V/F ===	U/I ====:
Location C/A Q	)ty ==	Low ====	High ====	Weight I/S	Volume I/S	VOC ===	Remarks ======				
STEVEN INDUSTRIES F2F221	4	-00-088 1	062-6950 5	CORROSION	FREVENTIVE 1.00 QT	COMF Ø	NIL-C-16173D REINSPECT 12/96	0.00	4	C	CR
RALRUBE INC F2F221	3	8030-00- 1	231-2345 5	CORROSION 8.00 LE	PREVENTIVE 1.00 GL	CONP Ø	NIL-C-16173D REINSPECT 12/97	0.00	3	0	CN
POLYMERIC SYSTEMS F2F222	56	8040-00- 45	225-4548 60	ADHESIVE 10.00 OZ	SEALANT RTV 0.50 QT	0	NIL-A-46106E REINSFECT 12/95	0.00	56	Û	TE
GIBSON-HOMANS F2F223	1	8040-00- 1	582-4596 5	ADHESIVE 8.00 LE	DECK 1.00 GL	c	NIL-A-21016F REINSPECT 6/96	0.00	1	C	CN
DAVIS HOWLAND CIL F2F226	4	9150-00- C	292-9657 5	OIL LUE F 8.00 LB	REF COMPRESS 1.00 GL	OR Q	VV-L-825A REINSFECT 06/98	0.00	4	Û	
TACC INTERNATIONAL P2P227	 3	8040-00- 1	515-2245 5	ADHESIVE 8.00 LB	FOLYCHLOROP 1.00 GL	RENE Ø	NIL-A-5540B REINSPECT 6/96	0.00	3	0	CN
TACC INTERNATIONAL F2F227	20	8040-00- 15	515-2246 30	ADHESIVE 16.00 OZ	FOLYCHLOROP 0.50 QT	RENE O	MIL-A-5540B REINSPECT 6/96	0.00	20	¢	Сн
VINASCO CORPORATIO F2F228 TYE	)N 8	8040-01- 1	097-4518 10	ADHESIVE 8.00 LE	FIRE RES TH 1.00 GL	ERMAL 0	MIL-A-3016C SEE COMPUTER FOR SH	0.00 ELF-LIFE DAT	es Es	C	CN
JET LUBE INC F2F229	6	8030-00- 5	059-2761 10	ANTI SEI C.25 LB	ZE COMPOUND 0.02 QT	0	MIL-A-907E TYPE 2 T6 REINSP 6-	<b>0.00</b> 97	6	0	CN
JET LUBE INC F2F229	4	8030-00- 0	251-3980 3	ANTI SEIS 16.00 OZ	E COMPOUND 0.50 QT	G	NIL-A-907E TYPE2 T6 REINSPEC	2.72 E 09/01/95 &	4 : 06/01/97	0	CN
JET LUBE INC F2F229	0	8030-00- 5	286-5453 10	ANTI SELI 16.00 OZ	ZE COMPOUND 0.50 QT	0	MIL-A-907E TYPE2 T6 REINSP 6-9	0.00 7	Ø	0	CN
JET LUBE CO F2F229	5	8030-00- 5	597-5367 10	ANTI SEIS 16.00 OZ	XE COMPOUND 0.50 QT	0	MIL-A-907E TYPE 2 T6 REINSP 6-	0.0C 97	5	0	
DAVIS HOWLING CIL P2P230	C0 4	9150-00- 1	823-8024 4	OIL LUBE	VACUUH PUHP 1.00 QT	G	MIL-L-83767E TYPE 2 T6 REINSPEC	3.17 I 06/97	4	0	ΒT

Page: 7

HI0601-5 07/11/95			ΗÅ	Z A F D C U Nast	S IKVEN! er list - Locat List	F C R tion S t All	Y CONTROL SY Mequence , All Items NSNS	STEM			Pag
Fart Number		NSR		Nomenc	lature		Military Spec.	Price Per I/S	Qty On Hand	V/P	U/I
Location C/A (	)ty	Low Tox	High ====	Weight I/S	Volume I/S	VOC ===	Remarks				
VALDES ENT. F2F231	2	6850-00-1 1	.81-7933 5	ANTI-F 56.00 LB	REEZE 5.00 GL	0	HIL-A-46513E REINSF. 7/98	30.00	2	¢	CN
SHELL OIL CO F2F233	2	9150-00-1 C	.80-6383 5	GREASE 35.00 LE	GENERAL PURPOS 5.00 GL	5E 0	NIL-G-24139 TYPE 2 T6 REINSPECT	0.00 06/97	2	6	CN
ROYAL LUBICANTS CO F2F233	)	9150-00-9 0	965-2003 3	GREASE 40.00 LB	MOLYBDENUH DIS 5.00 GL	SULF 0	HIL-G-21164D REINSPECT 06/97	0.00	1	8	CN
ROYAL LUB CO F2F234		9150-00-9 0	935-5851 5	GREASE	G.P. AIRCRAFT 50.00 GL	ĉ	MIL-G-81322 TYPE 2 T6 REINSPECT	0.00 06/97	1	0	CN
SOWESCO OLATHE F2F234	1	9150-01-1 4	197-769: 8	2 GREASE 1.00 OZ	AUTO & ARTILLI 50.00 GL	SRY Ø	NIL-G-109248 TYPE 2 T6 REINSPECT	3.00 06/97	1	0	CN
OCTAGON PROCESS IN F2F234	NC. 1	9160-00-6 0	585-0913 5	0IL IN 1.00 OZ	SULATING 5.00 GL	Q	TYPE2 T6 REINSPECT 0	0.00 6/97	1	0	CN
UNITED DESICCANTS F2F237	3	6850-00-2 2	264-6373 5	e ACTIVA 40.00 LB	TED DESICCANTS 5.00 GL	0	MIL-D-3464-D TYPE II 00 NEX	0.00 T INSF. 04/0	3 )1/96	0	CN
BUREKA CHENICAL CC F2F239	) 4	9150-00-5 2	i30-6814 5	GREASE 39.00 LE	WIRE ROPE 5.00 GL	C	NIL-G-18458B(S REINSP. 8/95	40.00	4	0	CN
CSD INC F2F241	1	6310-00-2 5	92-9625 20	i TRICHL 1.00 OZ	GROETHANE TECHI 1.00 GL	NICAL 0	TYPE II 00	4.05	2	ê	CN
SP0450-94-D-0003 F2F241	0	6850-00-1 2	.73-7243 15	SCALE 1 58.00 LE	PREVENTATIVE CO 6.00 GL	)NP Q	REINSFECT 12/98	0.00	9	Ŷ	CO
OCTAGON PROCESS F2F243	28	9150-01-0 20	180-5961 30	HYDRAU 9.00 LB	LIC FLUID CATAN 1.00 GL	FULT Ø	TYPE II T6 REINSPEC	0.00 T 06/97	28	0	CN
FNC CORP F2F245	3	9150-01-1 2	13-2046 5	HYDRAU 16.00 OZ	LIC FLUID FIRE 5.00 GL	RESI C	NIL-H-19457DSH TYPE 2 TG REINSFECT	0.00 06/97	3	9	CN
\$1 SELL OIL CO F2F247	56	9150-00-1 C	49-1593 4	GREASE 1.00 LB	BALL/ ROLLER I 0.25 QT	BEARN Ø	MIL-G-24508A TYPE 2 T7 REINSPECT	8.70 06/98	56	0	CN

age:

8

12 C P

.

- 1

1.00

ų,

HI0601-5 07/11/95

### HACAEDOUS INVENTOEY CONTECL SYSTEM Master list - Location Sequence , All Items List All NSNs

					L15	t all	NSHS				
Part Number	===	NSK		Nomenc	lature		Kilitary Spec.	Price Per I/S	Çty Oz Hazd	V/F	U/I
Location C/A	Qty ===	Low ====	High ====	Weight I/S	Volume I/S	VOC ===	Remarks				
ROYAL LUBRICANTS F2F247	CO 1	9150-00- ⁻ 0	754-2595 5	GREASE	MOLYBDENUM DIS 7.00 GL	SULF C	MIL-G-21164D TYPE 2 T6 REINSPEC	0.00 T 06/97	1	0	CN
SHELL OIL COMPANY F2F247	1	9150-00-9 0	935-4018 3	GREASE 1.00 OZ	NCLYBDENUK DIS 2.00 GL	SULP 0	NIL-G-21164D TYPE 2 T6 REINSPECT	0.00 06/97	1	C	TU
SHELL OIL COMPANY F2F247	4	9150-01-: 0	117-2928 4	GREASE 1.00 CZ	BALL/ ROLLER F 5.00 GL	BEARN Q	MIL-G-24508A TYPE 2 T7 REINSPECT	0.00 06/98	4	0	CN
SHELL OIL CO F2F243	5	9150-00-1 2	180-6382 5	GREASE 1.00 CZ	NULTI-PURPOSE 5.00 GL	Û	NIL-G-24139A(S TYPE 2 TC REINSPECT	0.00 06/97	5	0	CN
GAA F2F248	3	9150-00-1 3	198-0905 7	GREASE 6.50 LB	AUTC & ARTILLE 6.50 GL	CRY Ø	MIL-G-10924D Té TYPE 2 REINSPECT	0.00 06/97	3	0	
SOWECO F2F248	1	9150-00-2 1	35-5568 3	GREASE 1.00 OZ	GRAPHITE 6.50 GL	0	TYPE2 T7 REINSPECT	0.00 06/98	3	0	CR
ROYAL LUB CC INC P2F249	6	9150-00-9 2	144-8953 5	GREASE 1.00 OZ	AIRCRAFT 6.50 GL	Q	MIL-G-81322D TYPE2 T6 REINSPECT	0.00 06/97	6	0	
ROYAL LUB CO INC F2F249	1	9150-00-9 0	85-7246 4	GREASE 1.00 OZ	ACFT <u>&amp;</u> INSTRUM 5.00 GL	ient 0	NIL-G-23827E T6 TYPE 2 REINSPECT	0.00 06/97	1	Q	CN
F2F254	4	9150-01-1	31-3325 20	HYDRAU 1.00 OZ	LIC FLUID FIRE 1.00 GL	RESI Ø	TYPE II T6 REINSPECT	0.00 06/97	4	0	CN
HOLS AMERICA INC F2F257	27	9150-00-1 10	49-7432 20	HYDRAUI 9.00 LE	LIC FLUID FIRE 1.00 GL	RESI Ø	NIL-H-83282C TYPE 2 TE REINSPECT	0.00 02/96	27	0	CN
SOUTHWEST PETRO CH F2F258	EM 0	9150-00-9 0	85-7234 3	HYDRAUI 1.00 OZ	LIC FLE FETRO I 5.00 GL	NHIE Ø	NIL-H-17672D TYPE 2 T7 REINSPEC	0.00 T 06/97	0	0	CN
CASTROL INC F2F259	1	9150-00-2 0	61-8317 3	HYDRAUI 40.00 LB	IC FLD PETRO B 5.00 GL	ASE 0	MIL-F-17111E REINSPECT 06/97	0.00	1	Q	CN
NOBIL OIL F2F259 N	4	9150-00-6 1	57-4959 7	AUTO TH 45.00 LB	ANSMISSION FLU 5.00 GL	ID Ø	REINSPECT 5/96 HC=F	0.00	4	0	CN

Page: 9

H10601-5 07/11/95	H A	. 2 A R D O U S I N V E N T Naster list - Locat List	GRY CONTROL SY ion Sequence , All Items All NSNs	STEN			Fage
Part Number	NSR	Nomenclature	Military Spec.	Price Per I/S	Qty Cn Hand	V/P	U/I
Location C/A Qty	Low High	Weight I/S Volume I/S	VOC Remarks	*******			38381
ACCUMETRIC INC F2F263 10	9150-00-190-0932 1 20	2 BRAKE FLUID AUTOMOTIV 0.16 LB 1.00 QT	] Ə TYPE 2 TE REINSPECT	0.00 06/01/98	10	C	CN
OCTAGON PROCESS P2P263 3	9150-00-231-9071 1 5	BRAKE FLUID AUTONOTIVE 9.00 LE 1.00 GL	0 TYPE 2 T7 REINSPECT	0.00 06/01/98	3	3	CN
DOW CORNING CORP F2F263 2	9150-01-102-9455 2 5	PRAKE FLUIE SILICONE 9.00 LE 1.00 GL	MIL-B-46176 0 TYPE II T6 REINSPEC	34.29 T 06/01/97		¢	BĨ
AMERICAN OIL SUFPLY F2F264 8	9150-00-448-5009 5 10	OIL LUBE INSTRUMENT 9.00 LE 1.00 GL	0 TYPE II T7 REINSPECT	0.0C 06/98	8	Û	CN
OCTAGON PROCESS INC P2P275 6	6850-01-621-1819 5 20	LEAK DETECTION COMPOUN 1.00 CZ 4.00 QT	D NIL-L-25567 0 TYPE 2 36 NONTHS	0.00	б	0	BT
AMERICAN WRITING INC 9 F2F279 8	9150-00-261-7899 5 20	OIL PENETRATING 1.00 LE 1.00 GL	0 TYPE2 T7 REINSPECT 0	0.00 5/98	8	ŷ	CN
CASTROL INC 9 P2P279 19	9150-01-131-3324 10 20	HYDRAULIC FLUID FIRE RI 1.00 OZ 1.00 GL	RSI NIL-H-46170B 0 TYPE 2 T6 REINSPECT 0	0.00 06/97	19	0	CN
AIRCRAPT SERVICE CO 8 F2F282 6	3040-01-032-4051 5 20	PRIMER ADHESIVE 1.00 CZ 1.00 QT	0 TYPE 1 UU	0.00	5	G	CN
RAL RUBE INC 8 P2P283 5	3030-01-103-2868 5 10	SEALING COMFOUND 16.00 OZ 0.50 QT	0 TYPE2 T6 REINSPECT 12/	0.00 95	5	3	Br
ELTON CORF 9. 227283 2	150-00-175-9154 1 10	FLUID CUTTING 32.00 C2 1.00 QT	0 TYPE II T7 REINSPECT	0.00 06/98	2	3	CN
CTAGON PROCESS INC 9: 22283 5	150-00-250-0926 1 20	PETROLATUM TECHNICAL 1.75 LB 1.00 QT	0 TYPE 2 T6 REINSPECT 0	0.00 6/97	5	0	CN
OCTITE PUERTO RICO 80 2P284 0	040-00-142-9193 10 200	ADHESIVE CYANOACRYLATE 1.00 CZ 0.50 QT	MIL-A-46050C 0 TYPE II T2 NEXT INSI	0.00 F. 07/01/96	35	0	BT
TEVEN IND 82 2F284 3	040-01-068-2423 1 10	ADHESIVE 4.00 OZ 0.25 QT	0 TYPE II T6 NEXT INSP	0.00 2. 06/01/97	3	0	CN

E: 10

1. N. S.

1.22

HI0601-5 87/11/95

### HACARDOUS INVENTORY CONTROL SYSTEM Master list - Location Sequence , All Items

List All NSNs Price Qty Military Spec. Per I/S On Hand V/F U/I Nomenclature Part Number NSK Location C/A Qty Low High Weight I/S Volume I/S VOC Remarks MIL-C-372C 0.00 5 0 1 OCTAGON PROCESS INC. 6850-00-224-6657 RIFLE BORE CLEANER F2F287 5 1 10 8.00 OZ 0.25 QT 0 T6 REINSF 7 97 -----8030-00-003-7196 SEALING COMPOUND GASKET 1 0.00 0 CN 1 0 3 1.00 LE 0.50 QT 0 TYPE II T2 REINSPECT 12/95 F2F288 SAF T LOK CORP 8030-00-081-2328 SEALING COMPOUND MIL-S-22473E C.00 48 C BT F2F288 48 30 50 4.00 0Z 0.10 QT 0 TYPE II T5 REINSPECT 12/96 -----STEVEN INDUSTRIES 8030-00-656-1426 SEALING COMPOUND MIL-S-45180D 0.00 0 BT 7 F2F288 7 1 4 16.00 CZ 0.50 QT 0 TYPE 2 T6 REINSPECT 06/97 EREAK FREE INC 9150-01-053-6688 CLEANER LUBRICANTS & FRES MIL-L-63460D 0.00 7 C ET F2F289 7 5 9 1.00 CZ 1.00 GL 0 TYPE2 T7 REINSPECT 06/98 -----EREAK FREE INC 9150-01-054-6453 BREAK FREE MIL-L-63460D 0.00 10 0 BT F2F239 10 5 20 1.00 0Z 16.00 GL 0 TYPE2 T7 REINSPECT 06/01/98 _____ 6233-80-092-9 GULF LITE ORORLESS CHARCOAL ST 30 6.00 CE CE F4F210 C 10 50 C.00 1.00 PT C N/A FORD NOTOR CO 3150-80-002-0 0.00 1 0 BT NOTORCRAFT FORD TYPE F ATF F4F216 6 2 5 6.00 1.00 QT 6 N/C _____ TEXACO LUBRICANTS CO 7656-80-020-9 OIL HAVOLINE FORMULA 3 1 0 ET 0.00 F4F216 0 2 5 0.00 1.00 QT 0 N/C -----ECC-SURE 8010-01-331-6110 PAINT GLOSS RED SPRAY 6.00 2 C CN 2 10 24 10.75 OZ 0.50 QT 0 TYPE II T4 12 MONTHS REINSP 11-96 FIFC24 _____ 0.00 12 LHE INDUSTRIES 8010-00-935-7064 PAINT RED SPRAY MIL-L-81352 e cn FIF026 12 1 12 12.50 0Z 0.00 QT 0 DIXON TICONDEROGA CO 7215-97-200-0 WHITE 31-144 CHALK 0.00 14 0 BX H20004 C 5 2C 0.0C 1.00 BX 0 0C _____ 16 Ø BAG KODAK 4177-14-642-5 HYPO CLEARING AGENT 0.00 1 5 20 0.00 1.00 BG 0 00 H20007 _____

.*

-----

HI0601-5 07/11/95			ΗA	Z A R D O Mas	USINVEN ter list - Locat List	F C R Lion S L All	Y CONTROL SY Sequence , All Items NSNs	STEM			Fage
Part Number		NSK		Nomen	clature		Milítary Spec.	Price Per I/S	Qty On Hand	V/P	U/I
Location	C/A Qty	1000 1000 1111	High ====	Weight I/S	Volume I/S	VOC	Remarks			680	
MAGNETIC MED H20048	DIA DIV Ø	5111-11- 5	246-5 20	DATA I 0.00	HEAD CLEANING KI 0.00	.T 0	00	0.00	2	0	KT
VARN H20059	e	2017-33- 2	736-60 5	PURE ( 0.00	UM ARABIC SOL 0.00	0		0.00	1	9	BT
KODAK H20091	0	6750-00- 5	201-119 20	RAPID 0.00	FIXER PHOTOGRAP 0.00	HIC Q	TYPE1 6/95	0.00	2	0	BX
PAINT LKR	1	8010-00-) 5	N@5-1246 50	PAINT 8.00 LB	PHOTOLUMINESCEN 1.00 GL	T Q	REINSPECT 4/96 ISSUE	0.00 C AS 3 PARTS	55	0	CN
PAINT LOC	1	8010-00-2 24	285-4868 48	FAINT 0.00	MACHINE GREY 0.00	C		0.00	20	Ş	GL
PAINT LOC	2	8010-00-5 0	527-2050 0	PAINT C.OC	BLACK STRIP 0.00	0		0.00	122	9	GL
DALVIN PAINT LOC	0	8010-00-6 5	516-7487 50	PAINT 0.00	RED 0.30	0		0.00	16	3	GL
PRATT PAINT LOC	3	8010-00-8 5	353-1859 75	PAINT 0.00	BLUE STRIP 0.00	0		0.00	35	0	CN
AMERCOAT PAINT LOC	1	8010-01-3 3	102-3608 Ə	PRIMER 0.00	150 5.00 GL	0	MIL-P-24441	0.00	111	0	5 GL
FAINT LOCK	ç	3010-30-2 1	97-0567 5	PAINT I C.00	SNAMEL ALKYD LUS C.00	iter O		11.33	1	0	QT
PAINT LOCK	1	3010-00-2 5	98-2295 15	PAINT ( 0.00	GREEN STRIPE 0.00	G	00	0.00	4	0	CN
INTERNATIONAL PAINT LOCK	FAINT 8 C	010-00-4: 2	10-3461 5	PRIMER 0.00	WHITE EPOXY 5.00 GL	0		0.00	3	0	CN
PAINT LOCK	8 2	010-00-53 5	30-5559 20	PAINT F 0.00	URFLE 5.00 GL	0		6.00	ee.	0	CN

e: 12

1821

y y

Performed a

HI0601-5 07/11/95			ΗÅ	Z A E D C Nas	U S I K V E N T ter list - Locat List	0 E 10E S All	Y CCNTECLS) Sequence, All Items NSNs	STEH	<b>6</b> • • •		Page.
Fart Number		NSK		Nomen	clature		Military Spec.	Price Fer I,S	çty On Hand	V/P	U/I
Location C/A	Qty 	TTTT Fom Tom	High ====	Weight I/S	Volume I/S	V0C ===	Remarks				
CHEMICAL SPECIALI PAINT LOCK	IST 3	8010-00- 5	-558-7026 20	PAINT 0.00	THINNER 5.00 GL	Q		6.00	80	9	GL
NILES PAINT LOCK	9	8010-00- 20	577-4739 100	PAINT 0.00	WHITE P124 5.00 GL	0		0.00	119	0	GL
DAVLIN PAINT CO PAINT LOCK	1	8010-00- 5	-616-7488 30	PAINT 0.00	YELLOW 1.00 GL	Q		0.00	18	Q	CN
PAINT LOCK	4	8010-00- C	-815-2692 C	PAINT C.00	HITENP ALUMINUK 0.00	e		C.00	14	0	CN
DALVIN PAINT CO PAINT LOCK	0	8010-01- 2	285-1328 5	PRIME C.00	R ZINC 5.00 GL	8		0.00	4	¢	CN
PAINT LOCK	3	8010-01- 2	344-5098 5	PAINT 0.00	CLIPPER BLUE 0.00	ç		135.91	4	0	CN
HI TEMF PAINT LOCK	Ø	3010-01- 1	344-5120 5	FAINT 3.00	ENAMEL HEAT RES. 0.00	IST C		296.25	1	Q	CI
CRAWFORD LABS PAINT LOCK	2	8010-01- 10	344-5309 50	PAINT 0.00	HAZE GREY 5.00 GL	0	NIL-E-24635	0.00	63	0	CN
NILES PAINT LOCK	2	8010-01- 5	344-5322 20	PAINT 0.00	ENAMEL WHITE 5.00 GL	c		0.00	10	0	CN
CRAWFORD LAB FAINT LOCK	2	8010-01- 10	344-6203 100	PAINT 32.00 02	BLACK 1.00 GL	0	NIL-E-24635A PAINT LOCKER	0.00	20	G	GL
PAINT LOCK	3	8010-01- 2	344-6700 10	FAINT C.OO	TERRACOTTA 0.00	0	00	0.00	4	0	CN
CRAWFORD LAB PAINT LOCK	e	8010-01-: 5	344-6703 20	PAINT C.00	BLACK 5.00 GL	0		0.00	18	Q	CN
AMERCOAT Paint lock	0	8010-01-: 5	350-4727 10	PAINT 0.00	DECK GREY 5.00 GL	0		3.00	92	Ø	CN

HI0631-5 37/11/95			H Y	I A R D O U Nast	S INVEN er list – Loca Lis	T C R tion S t All	Y CONTROL S Sequence , All Items NSNs	S T S T E N 5			Page
Part Number		RSN		Nomenc	lature		Military Spec.	Price . Per I/S	Çty On Hand	V/P	U/I
Location C/A	Qty sss	To:: To:: To::	High ====	Weight I/S	Volume I/S	VOC	Remarks				
AMERCOAT PAINT LOCK	ð	8010-01- 5	350-474: 20	B FRIMER 0.00	WHITE EPOXY 5.00 GL	0	HIL-F-2441	00.90	12	G	CN
PRATT & LAMBERT PAINT LOCK	0	8030-00-: 5	165-8577 20	PRIMER 0.00	FORMULA 117 5.00 GL	9		0.00	9	0	CN
PANIT LOK	3	8010-00-: 0	281-2079 0	FAINT I 9.00 LE	DECK MAHOGONY 1.00 GL	0		0.00	11	Q	CN
BATTERY ASSEMBLER: SHOF	 S 200	6135-00-( 50	073-8939 100	BATTER 4.00 CZ	IES, ELECTRIC 0.01 QT	ç	REINSF. 3/98 T7 1	4.24 TYPE II	200		BATT
Shop	0	6135-00-8 0	335-7210 10	BATTER 16.00 CZ	Y, D SIZE 0.50 QT	0	TYPE I UU	0.00	36	9	BATT
AUSTINS SHOF	10	6810-00-5 5	598-7316 20	BLEACH 9.00 LE	CLO WHITE 1.00 GL	9	60	9.41	10	رې	BT
RH CARLSON CO SHOP	17	6850-00-8 17	380-7616 30	SILICO 1.00 OZ	NE CONFOUND 1.00 GL	0	MIL-S-8660C REINSPECT 04/97	0.00	17	0	
CANTOL INC SHOP		6850-00-N 5	102-6371 10	THAT GR 32.00 CZ	REEN STUPP 1.00 QT	0	00	0.00	5	Ĵ	BT
SHOF	9	7920-00-8 0	23-9818 0	NEVR DI 16.00 OZ	ILL 0.50 QT	0	NIL-1-22590C TYPE II 00	5.67	5	C	CN
SOUTH WIN LTD SHOP	5	7930-00-1 10	.84-9423 30	GLASS C 4.00 CE	LEANER LIQUID 0.25 QT	C	TYPE II T7	0.00	5	G	BT
SHOP°	2	7930-00-9 10	26-5280 30	GENERAL 16.00 CZ	. PURFCSE DETEN 0.50 QT	rgent 0	TYPE II T7	0.00	2	0	BT
EIRSCH SHOF	8	7930-00-N 5	03-3586 20	BLUE KN 16.00 OZ	IIGHT 0.50 QT	G	TYPE II 00	0.00	8	0	BT
SHOP	2	8030-01-1 1	54-9247 2	BASE CC 1.00 LB	NFOUND 0.00 QT	G	MIL-S-8802F TYPE 1 CL A- 1/2	0.00 REINSPECT 09/0	2 1/96	0	

e: 14

87/11/95				Master	r list - Loca Lis	tica S t All	equence , All Items NSRs				
Fart Number		NSK		Nomencl	ature		Military Spec.	Price Per I/S	Qty On Hand ======	V/F ===	U/I *====
Location	C/A Qty =======	Low	High	Weight I.S	Volume I/S	VOC ===	Remarks				
MA-412 Shof	1	8040-00- 1	-273-871 5	6 ADHESIV 8.00 OZ	6.25 QT	0	NM-A-121 TYPE II T4 12 MONTHS	0.00 REINSF 7/96	1	ŝ	CN

	24 25 26 27 28 29 32 31 32 33 34 35 36 37 38	39 20 41 22 43 44 25 46 27 25 49 50 51	52 53 54 55 56 57 55 59 60 61 62 63 64 65 66 61 68 59 11	
100 FEDW 1 FED 100 100 100 FADD		SEPIAL ADDRESS		UDLLAPS C
SHORE FROM	Typpo VI-UC-	МАЯК	FOR PROJECT	TOTAL PRICE
155 SAIPANI (LHIFI 2)	PUC NOR	FOLK	95-1520	9 / (1)
CAPGO PACK	CUBE	N M C PREIDIL BATE	DATE COND	
FURST TUTE DATA HTEM OPIGINALLY REQUESTED: FREIGHT OL	ASSIFICATION NOMENCLATUPE	м	N G P G P	S
	1 ATHE N 1748	PO 17 Pors		
wx = 0.57-1 x () =	LICIUM HYPOCI	LICRITE	1 : ! v	
SELECTED BY AND DATE TYPE OF	CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DATE	INSPECTED BY AND DATE	
	3 ONTAINERS TOTAL CUBE	E U 7	B WAREHOUSE LOCATION	<b></b>
	$\overline{}$	E H		_
FEMARKS	6	T. AFPROVI	D FEEP TEANSF	T AL
		C.A.		
AA BB	DATE SHIPPED			CT-1-2-1-
UND GC/DR	12	FF	'GG	
13 TRANSPORTATION CHARGEABLE TO	14 B/LADING, AWB, OR RECEIVER'S S	GNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER	
DD Form 1348-1, JUL 91 PF SvN 0102-LE-013-7500	EVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RELEA:	SE/RECEIPT DOCUMEN
	-			
· · · · · · · · · · · · · · · · · · ·	4 25 26 27 28 29 30 31 32 33 34 35 36 37 38 3	3 40 41 42 43 44 45 46 47 48 49 50 51 52	53 54 55 56 57 58 59 50 61 62 183 184 85 88 87 58 184 171 7	1 72 73 74 75 75 77 77 78
DOC RI M STOCK NUMBER	QUANTITY DOCUMENT NUMB	EP X SUPPLEMENTARY FL	IND DISTRI- PROJ FEC D U, BI BUTION ECT E DEL DEL DEL DEL DEL DEL DEL DEL DEL D	DOLLAHS CTUR
BULD 010780737 CI	101 V20633 511			
DES SALPAN / HAS	PIC NOT	FALL		DOLLARS 1015
	F F W NUK		45-31932	<b>2</b>
WAREHOUSE LOCATION TYPE OF UNIT UNIT CARGO PACK	WEIGHT UNIT UFC CUBE	N M F C FREIGHT RATE	DOCUMENT MAT OUANTITY DATE COND	
5 Б Н 1	J K L	м	N 0 P 0 P	2
ISUBSTITUTE CATA IITEM ORIGINALLY REQUESTED) FREIGHT CLA	SSIFICATION NOMENCLATURE	3, UN 1133 , PG-	TiDool	
ITEM NOMENO	CLATURE	ADHESIVE	, <u>, , , , , , , , , , , , , , , , , , </u>	
SELECTED BY AND DATE	ONTAINERIS) TOTAL WEIGHT	RECEIVED BY AND DATE	INSPECTED BY AND DATE	
× IX gal	'N 3	E Joseph	Quit.	
P S FACKED BY ANO DATE NO OF CO	NTAINERS TOTAL CUBE	VE WAREHOUSED BY AND DATE	WAREHOUSE LOCA1-07.	
	66	T, APPROVE	D FOR TEANSFE	ER
	6	ST, APPROVE	D FOR TEANSFE MUCCIO 15 ²	ER USN,
S REMARKS AA FIGST DESTINATION (DDRESS S S S S S S S S S S S S	6 CC DATE SHIPPED	DPPROVE	D FOR TEANSFE AUCENO IS ³ EEBY DIRE	USN CTILN
REMARKS	G CC DATE SHIPPED	DD DPROVE	D FOR TEANSFE AUCENO IS ³ EBY DIRE	USN CTILN
REMARKS	6 CC DATE SHIPPED 12 14 BILADING AWB OR RECEIVER S SI	DD GNATURE IAND DATE)	D FOR TEANSFE MUCHO IS ³ SEEBY DIRE	USN CTILN

DD Form 1348-1, JUL 91 S/N 0102-LF-013-7500 PREVIOUS EDITION MAY BE USED

DDD STOLE LIND JEW BELEVAD DEDE OT DT DI HIN

	122 23 C4 25 2612 727 133 33 33 36 36	31 38 35 45 41 45 43 44 45 45 47 48 49 50 51	52 53 54 55 55 57 55 59 56 67 55 55 66 75 55 56 75 168 75 75	
6810 027592031		DATE SEPLA DE LADORESS ISI		Course parts
155 SAIPANI (LHA =	-) PWC NOR	FOLK	95 -31931	
SEP DUSE LOCATION TYPE OF UNIT CAFGO PACK	UNIT WEIGHT UNIT U.F.C. CUBE	N M F C . FREIGHT RATE	DOCUMENT MAT OUANTITY DATE COND 1. 0 F 10 P	
THE DATA HIEW ORIGINALLY REQUESTED FREUD	IGHT CLASSIFICATION NOMENCLATURE	ATED	v	
SELECTED BY AND DATE	METHNL YPE OF CONTAINERIS: TOTAL WEIGHT	RECEIVED BY AND DATE	INSPECTED BY AND DATE	
IV GOZ BOTTIE	BT 3		8	
PACKED BY AND DATE	O OF CONTAINERS TOTAL CUBE	V E WAREHOUSED BY AND DAT	E WAREHOUSE LOCATION	
s s s s s s s s s s s s s s s s s s s	₆	The APPRO	ED FOR TRANSI	<u>fer</u>
LISED P		C .	PULLOD IS	USN
CESTIMATION ADDRESS	CC DATE SHIPPED			(1514
	12	FF		
INSPORTATION CHANGEABLE TO	14 B/LAUING, AWB, OH HECEI	VER S SIGNATURE IAND DATE)	15 RECEIVER'S DOCUMENT NUMBER	
	22 23 24 25 26 27 28 27 28 29 30 31 32 33 32 35 35	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
RI M STOCK NUMBER		ATE SERIAL SUPPLEMENTARY FIL	ND DISTR⊢ PROJ BUTION PCT É ECT É E E DATE 2	UNIT PRICE DOLLARS CTS
SS SAIPAN (LHA-	>) FWC NU	REDLK	95-31933	TOTAL PRICE DOLLARS CTS
DUSE LOCATION TYPE OF UNIT CARGO PACK	UNIT WEIGHT UNIT U.F.C. CUDE	N M F C FREIGHT RATE	DOCUMENT MAT QUANTITY DATE COND	5
G H		м	N O P O R	S
U ITEM 1	NDN - REGUÚR	MED	1 1 1	
LECTED BY AND DATE	UDICATOR HUNI	DITY CARD	IMSPECTED BY AND DATE	
Y DUIT	CV	R A- 10-95		
ACKED BY AND DATE	OF CONTAINERS TOTAL CUBE	E S Coco	WAHEHOUSE LOCATION	
5	$\square$	\$, APPROVI	D FOR TRANSF	FER
USED BR			hn Aucero IS	BUSN CTION
LITERTION ADDRESS	DATE SHIPPED	0		
NSPORTATION CHARGEABLE TO	12 14 B/LADING, AWB, OR RECEIVE	FF R'S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER	

m	1348-1, JUL 91	
02-	LF-013-7500	

PREVIOUS EDITION MAY BE USED

DEN FRON 18 FSC STOCK DUMBER S FSC NIIN ADD 599 5 5750 105441529 PT	
USS SAIPAN (LHA-2)	PUC NORFOLK C C C C
TYPE OF UNIT UNIT WEIGE CARGO PACK  CARGO PACK  COMPONIT UNIT WEIGE  COMPONIT CASSIFIC  COMPONIT CASSIFIC	UNIT UNIT UFC NMFC FREIGHT RATE DOCUMENT MAT CUANTITY DATE COND J K M C M M C FREIGHT RATE DOCUMENT MAT CUANTITY DATE COND CATION NOMENCLATURE
	SILE LIQUID NOS (AKLINE INGREDIENTS) 8, UNITED
BX 802 BT PACKED BY AND DATE NO OF CONTAINING	RECEIVED BY AND DATE RECEIVED BY AND DATE HISPECTED SY AND DATE RECEIVED BY AND DATE HISPECTED SY AND DATE RECEIVED BY AND DATE
ARKS REPARTS	CC DATE SHIPPED DO DIRECTION
TRANSPORTATION CHARGEABLE TO           Form 1348-1. JUL 81           10102-L.F-013-7500	12     FF     'GG       14 B/LADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)     15 RECEIVER'S DOCUMENT NUMBER       IS EDITION MAY BE USED     DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT
Image: State of the state o	6 27 28 29 30 31 32 33 34 35 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 56 57 58 59 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 52 53 54 55 50 51 51 52 50 51 51 52 50 51 51 52 50 51 50 51 50 51 50 51 50 50 51 50 50 51 50 50 50 50 50 50 50 50 50 50 50 50 50
USS SAIPAN (LHA-2) T	PWC NORSOLA C D E HT UNIT UFC NMFC FREIGHT RATE DOCUMENT MAT DUANTITY J K L M N 0 P 0 R IS
UESTITUTE DATA ITEM ORIGINALLY REQUESTEDI UNON ITEM NOMENCIATUI	- REGULATED V JARE X- DADINATIONER PARTA & BIV 4 REPLENICHER PARTA & BIV
SELECTED BY AND DATE TYPE OF CONTAIN SEPACKED BY AND DATE NO OF CONTAIN SEPACKED BY AND DATE NO OF CONTAIN SEPACKED BY AND DATE NO OF CONTAIN	AINERIS TOTAL WEIGHT B 3 NERS TOTAL CUBE 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1
A LISE DIRP	CC DATE SHIPPED DO PERECTION
2 TRANSPORTATION CHARGEABLE TO	12     FF     50       14 BLADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)     15 RECEIVER'S DOCUMENT NUMBER       14 BLADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)     15 RECEIVER'S DOCUMENT NUMBER       15 DUS EDITION MAY DE USED     DOD SINGLE UNE ITEM RELEASE RECE PT DOCUMENT

		8 35 40 41 42 42 44 45 46 47 45 43 50 5	* 52[53]54[55]55[27:55]55[67]57[67]55[64;44:55]57[67]64;44	
1.1. FROM 18 1.732 01 02 284	110 BT 00\$ V.2.632 51	e ser a bie adoress 71 7000		20. AFE 278
USS SAIPAN (L	HAD PWC ND	2FOLK	95-3/938	
REHOUSE LOCATION TYPE OF CARGO	UNIT UNIT WEIGHT UNIT UFC PACK CUBE	N M F C FREIGHT PATE		:
ISTITUTE DATA (ITEM ORIGINALLY REQUESTED)	FREIGHT CLASSIFICATION NOMENCLATURE	1PH 5.0	-7.0	
	* BLEACH I PF	IRT A		
SELECTED BY AND DATE	NO OF CONTAINERS TOTAL CUBE		7 Serie en and date Ate WAREHOUSE LOCATION	
4	5 BT 6	S APPE	OVED FOR TRAN	SPER
LISED/RP	CC DATE SHIPPED		ofun JUCILIO AS	53 USN ECTION
CONSTRUCT CITABOLABLE TO				
Corm 1348-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USED	_	DOD SINGLE LINE ITEM REL	EASE/RECEIPT DOCUMENT
13         4         5         6         7         9         9         10         11         12         13         14         15         16         17         18           10         FI         M         STOCK NUMBER         STOCK NUMBER         NIN         NIN	ADD 50 21 22 23 24 25 26 27 28 29 30 31 32 33 4 35 36 37 38 37 39 4 00 00 00 00 00 00 00 00 00 00 00 00 0	339         40         41         43         44         45         46         47         48         49         50         51           WBER         X         SIIPPLEMENTARY         X         SIIPPLEMENTARY         X         SI         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y         Y	1 52 53 54 55 55 55 55 59 50 61 50 60 65 65 65 65 65 75 55 59 50 61 60 61 65 66 67 65 65 75 65 75 65 75 65 75 65 75 65 75 75 75 75 75 75 75 75 75 75 75 75 75	011 2 72 72 73 8 77 78 78 14: 011 PAICE DOLLARS
455 5A/PAW	525 181 0001 1V120632578 SHIP TO PWC 2106	VIZUA	I I I I I I I I I I I I I I I I I I I	TOTAL PRICE DOLLARS STO
LAA L 2063	2 B G2-	JG C	D	e
HOUSE LOCATION TYPE OF CARGO	UNIT UNIT WEIGHT UNIT UFC PACK : H	N M F C FREIGHT RATE		c.
TITUTE DATA (ITEM ORIGINALLY REQUESTED)	FREIGHT CLASSIFICATION NOMENCLATURE			
	U AJON) REG		1 _V	
SELECTED BY AND DATE	X POTASTIAM DICHRO	MATE		
1	BT, 5LB	R E 7 7	- 15 B	
PAUNED BY AND DATE				
IX 52B		APPRC Ars1/	SUEB FL TRAdSF	FR
DESTINATION ADDRESS	DATE SHIPPED			
RANSPORTATION CHARGEABLE TO	12 14 BLADING AWR OR RECEIVER'S		GG	<u></u>
*				
orm 1348-1, JUL \$1	PREVIOUS EDITION MAY DE USED		DOD SINCLE LINE ITEM PEL	EASE-RECEIPT DOC TVCNT

5- 24 -5 C- 7- 8 91 10 11 12 13 14 15 16 17 18	19 20 21 22 23 24 25 26 27 28 20 31 32 33 34 35 36 37 36 3	19 40 41 42 43 44 25 46 47 48 49 50 51 52	53 54 55 56 57 58 59 60 51 62 63 54 54 54 56 51 55 55	
FROM & FSC NRA		SEFIAL ADDRESS VOS		COLLARS (CTS)
6850 00 852 656	9 37 0001 V 20532 5788	170B 3	PROJECT	
USS SAIPAN LI	1A2 TWC NORVA			2
1/26632	Ĝ	.50		r -
HOUSE LOCATION TYPE OF		N M F C FREIGHT RATE	DOCUMENT MAT QUANTITY DATE COND	
				c
G TUTE DATA (ITEM ORIGINALLY REQUESTED)	H J K IL	M		
· · · · · · · · · · · · · · · · · · ·	U NON PES		v	
	* ANSTAC-2M CLEANING	AGENT	Y	
ELECTED BY AND DATE	TYPE OF CONTAINER(S) TO (AL WEIGHT	RECEIVED BY AND DATE	INSPECTED BY AND DATE	
	$\frac{3}{2}$	E s Journa	θ	
ACKED BY AND DATE	NO. OF CONTAINERS. TOTAL CUBE	E E E E E E E E E E E E E E E E E E E	WAREHOUSE LOCATION	
	5 6	S	10	
94147	1	APPROVED	F/TRANSFER	
' ' 88	cc	DD AD I Link	Eurou Diee	
ESTINATION ADDRESS	DATE SHIPPED			
	12	FF	GG	
NSPORTATION CHARGEABLE TO	14 BILADING, AWB, OR RECEIVER'S S	SIGNATURE (AND DATE)	15 HECEIVER S DOCUMENT NUMBER	
m 1348-1, JUL 91	PREVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RELEA	SE/RECEIPT DOCUMENT
RI M STOCKNORER NIN FROM & FSC NIN I HAZ40 DO174 130 SFROM SAIPAN LAA	$\begin{array}{c c} \hline ADD \\ \hline \\$	SERIAL ADDRESS NO	BUTION     ECT     Email     Del     Media       DATE     Media     Media     Media     Media       OR     PROJECT     Media     Media	
V2063 2	Q - 5	Ś	D	Ę
OUSE LOCATION TYPE OF CARGO	UNIT UNIT WEIGHT UNIT UFC	N M F C FREIGHT BATE	DOCUMENT MAT CLANTITY DATE COND	
G	H J K L FREIGHT CLASSIFICATION NOMENCLATURE	м		<del>نے۔۔۔۔۔ فلے۔</del> ا
	USXIDIZING SULFIDNCE	SOLID ECROO	5 10 N.O. 5	
	* OBA CAA/ISTER	51 UN 30	\$STAIL BARUM PC	ROYING
ELECTED BY AND DATE	TYPE OF CONTAINERIS TOTAL WEIGHT	RECEIVED BY AND DATE	Insection 6	160 AC
		ECEUST Torren Com	8 WARE-DUSE LOCATON	
ACKED BY AND DATE	NO OF CONTAINERS TOTAL CUBE	E WAREHOUSED BY AND DATE		
	$\left \begin{array}{c} + \end{array}\right _{6}$	5 A 9	10	
#J5GL	t	APPROVED	1/ TKANSFER	
88	i icc	DO DO'UM	reycinafe	
DESTINATION ADDRESS	DATE SHIPPED			
	12 R P	FF SIGNATURE (AND DATE)	GG 115 RECEIVER'S DOCUMENT NUMBER	
NSPORTATION CHARGEABLE TO	HE BLAUING, AWB, UN HEGELVEN S.			
m 1348-1, JUL 91	PREVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RELE	ASE HELEPPI BUCCMENT

1 Form 1348-1, JUL 91 -1 0102-LF-013-7500

	2 22 22 22 24 25 26 27 28 29 30 31 32 33 34 35 30	T MBER CONFIGNENTAE	VI JEUNCI DISTR PROL I LEPEDO	
ENT FROM S FSD MIN			BUTION ECT RESOLUTION	
16810 00 527 2476	<u>: BTIODZIV2053215</u>	188:70BO	MARK FOR PROJECT	
USS SAIPAN	PWC	NGRUA		:
1/2063	4	58	0	E
EHOUSE LOCATION TYPE OF UNIT	UNIT WEIGHT UNIT UFC	N M F C FREIGHT RAT	E DOCUMENT MAT QUANTITY DATE COND	
		, v	N IO IP C	R 5
TITUTE DATA IITEM ORIGINALLY REQUESTED:	EIGHT CLASSIFICATION NOMENCLATURE		A ( b	
ں ۱TE	PMMAN/IA Salu	Ten YUB	1 2612 PS7 1	soci-
x	AMMONIUM H!	YDRGXIDE	1v	
SELECTED BY AND DATE	TYPE OF CONTAINERIS) TOTAL WEIGHT	RECEIVED BY AND DA	-795	5° AND DATE
	BT 3	E s Torene	Bank 6	
PACKED BY AND DATE	NO OF CONTAINERS TOTAL CUBE	U E WAREHOUSED SPANO	D DATE - RAREHOUS	E LOCATION
	26	S + s	10	
ARKS	· · · · · · · · · · · · · · · · · · ·	APPROU	ED FITRANSFE	2
JUL OT			LINE A DEL	
T DESTINATION ADDRESS	DATE SHIPPED		gone	
RANSPORTATION CHARGEABLE TO	12 14 B/LADING, AWB, OR RECEI	IVER'S SIGNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBE	9
				INE ITEM RELEASE/RECEIPT DOCUMENT
Form 1248-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USE	D		· · · · · · · · · · · · · · · · · · ·
Form 1248-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USE           22         23         24         25         26         27         26         29         20         31         32         33         34         36         37           JD         S         S         OUANTITY         OCCUMENT N         DC         DC         DA         DC         S         37         COCUMENT N         DC         DC         DC         DC         S         COCUMENT N         DC	D 38 39 40 41 42 43 44 45 46 47 46 49 50 <u>YUMBER</u> ATE SERIAL K ADDRESS 77 1 - 2 A D R	$51 52 53 54 55 56 57 58 59 50 61 62 53 64 65 \overrightarrow{F} FUND DISTRI- PROJ BUTION ECT \overrightarrow{e} \leftarrow DSL \\ \overrightarrow{e} $	66-67-66-67-70
EORM 1248-1, JUL 91 0102-LF-013-7500 1 - 2 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 RI RI HI FROM \$ FSC VSS SG 1Pan / Ly	PREVIOUS EDITION MAY BE USE           22         23         22         25         26         27         26         23         31         22         33         34         35         36         37           30         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	D 138 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EX SUPPLEMENTARY ATE SERIAL EX SUPPLEMENTARY X SUPPLEMENTARY X SUPPLEMENTARY X SUPPLEMENTARY A TO A 9 1 1 1 MA	51     52     53     54     55     55     55     59     50     61     62     53     64     65       J     FUND DISTRI- PROJ BUTION     PROJ ECT     ECT     ECT     ECT     DEL     0       SS     I     I     I     I     I     I     I     0       SS     I     I     I     I     I     I     I     0       I     I     I     I     I     I     I     I     I       I     I     I     I     I     I     I     I       I     I     I     I     I     I     I     I	66         67         68         57         71         72         72         72         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74<
отот 1348-1, JUL 91 0102-LF-013-7500 1 - 2 - 5 - 6 - 7 - 8 - 9 - 15 - 11 - 12 - 13 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - FROM & FSC NIIN AI - FROM & FSC NIIN AI - GSSO-0179-37736 - FROM 	22         23         22         25         26         27         28         29         20         31         32         33         33         36         37           20         30         30         30         31         32         33         33         36         37           20         30         30         30         31         32         33         33         36         37           20         30         30         30         31         32         33         33         36         37           20         30         30         31         32         33         34         35         36         37           20         30         30         31         32         33         33         36         37           30         37         37         36         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37	D 1 38 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EXERTARY ATE SERIAL EXERT SERIAL EXERT ADDRESS ADDRESS ADDRESS ADDRESS C C N M F C FREIGHT RATE	SI 52 53 54 55 56 57 56 59 50 61 62 53 64 65 FUND DISTRI- PROJ BUTION ECT EE DATE	66         67         66         67         67         71         71         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72         72<
orm 1348-1, JUL 91 2102: LF-013-7500	22         22         25         26         27         28         29         20         31         32         33         34         35         36         37           30         DO         DO </td <td>D 1 38 39 40 41 42 43 44 45 46 47 48 49 50 NUMBER ATE SERIAL SERIAL X SLIPPLEMENTARY ADDRESS X DDRESS X DDRES</td> <td>51     52     53     55     55     57     56     59     50     61     62     53     64     65       FUND     DISTRI-     PROJ     E     REC D     E     DEL     D</td> <td>66 67 66 159 7C 11 12 13 11 25 14 11 17 17 13 12 Fu UTT PECS DOLLARS CTS TOTAL OBJOR COLLARS 1075 F</td>	D 1 38 39 40 41 42 43 44 45 46 47 48 49 50 NUMBER ATE SERIAL SERIAL X SLIPPLEMENTARY ADDRESS X DDRESS X DDRES	51     52     53     55     55     57     56     59     50     61     62     53     64     65       FUND     DISTRI-     PROJ     E     REC D     E     DEL     D	66 67 66 159 7C 11 12 13 11 25 14 11 17 17 13 12 Fu UTT PECS DOLLARS CTS TOTAL OBJOR COLLARS 1075 F
orm 1348-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USE           22         23         24         25         26         27         28         29         30         31         32         33         34         36         35         35         35         37         35         35         37         35         35         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37         37 <td< td=""><td>D 138 33 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL SERIAL SUPPLEMENTARY ATE SERIAL SERIAL CONSTRUCTION ADDRESS ADDRESS ADDRESS C C C N M F C FREIGHT RATE L M</td><td>SI 52 53 54 55 55 57 58 59 50 61 62 53 64 65 FUND DISTRI- PROJ BUTION ECT. EED DEL BUTION ECT. EED DEL DATE DATE D D D D D D D D D D D D D</td><td>66         67         68         55         77         71         72         74         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75&lt;</td></td<>	D 138 33 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL SERIAL SUPPLEMENTARY ATE SERIAL SERIAL CONSTRUCTION ADDRESS ADDRESS ADDRESS C C C N M F C FREIGHT RATE L M	SI 52 53 54 55 55 57 58 59 50 61 62 53 64 65 FUND DISTRI- PROJ BUTION ECT. EED DEL BUTION ECT. EED DEL DATE DATE D D D D D D D D D D D D D	66         67         68         55         77         71         72         74         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75<
Form 1248-1, JUL 91           0102-LF-013-7500           1 - 2 - 5 - 6 - 7 - 8 - 9 - 15 - 11 - 12 - 12 - 14 - 15 - 16 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 17 - 18 - 19 - 26 - 27 - 27 - 20 - 27 - 20 - 27 - 20 - 27 - 27	PREVIOUS EDITION MAY BE USE           121 23 24 25 26 27 26 29 26 31 32 33 34 35 36 37           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 37           120 5 37           120 5 37           120 5 37           120 5 37           120 5 37           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70           121 70	D 1 38 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPPLEMENTARY ADDRESS ADDRESS ADDRESS C C C C C C C C C C C C C	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	56         67         67         67         73         72         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         73         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74<
Form 1348-1, JUL 91 0102-LF-013.7500	PREVIOUS EDITION MAY BE USE           121         22         25         26         27         28         29         30         31         32         33         33         36         37           20         10         10         10         10         10         100         100           20         10         10         10         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	D 1 38 39 40 41 42 43 44 45 46 47 48 49 50 NUMBER ATE SERIAL C SERIAL MA C SERIAL C SER	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	66 67 68 59 70 10 10 10 10 10 10 10 10 10 10 10 10 10
Eorm 1348-1, JUL 91       0102-LF-013-7500       21 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21       FROM       A       FROM       STOCA HUMBEP       VIE DATA (ITEM ORIGINALLY REQUESTED)       UTE DATA (ITEM ORIGINALLY REQUESTED)       UTE DATA (ITEM ORIGINALLY REQUESTED)       LECTED BY AND DATE	PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 26 29 36 31 32 33 34 33 36 37 20 0 UANTITY DOCUMENT N 21 20 0 UANTITY DOCUMENT N 22 AN OCCOL V204-32 51 SHIP TO 24 D UNIT WEIGHT UNIT UFC 1 HI CLASSIFICATION NOMENCLATURE 1 A M P J/A J. 70 C/A 7 E 26 OF CONTAINERIS) TOTAL WEIGHT	D 138 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EX SUPPLEMENTARY ATE SERIAL EX ADDRESS XX 170 A9 1 1 1 MA G SG C N M F C FREIGHT RATE L M M M M M M M M M M M M M M	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	66     67     67     71     72     74     75     74     75       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1
COM 1348-1, JUL 91 D102-LF-013-7500	PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 28 29 20 31 32 33 34 35 36 37 DD 5 30 QUANTITY COCUMENT I DOCUMENT I COCUMENT I COCUMENT I COCUMENT I COCUMENT I COCUMENT I DOCUMENT I DOCUMENT I COCUMENT I DOCUMENT I DOCUMEN	D 138 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EXEMPLEMENTARY ATE SERIAL EXEMPLEMENT ATE SERIAL EXEMPLEMENT AT	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	66     67     68     67     71     71     72     74     75     74     75     74     75     75       1     1     1     1     1     1     1     1     76     75       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1 </td
Grm 1348-1, JUL 91           D102-LF-013-7500           S1 - 2 b 6 7 8 9 10 11 12 13 14 15 16 17 18 19 26 21           FROM \$           CFROM \$           USS \$           Sarpan \$           L           USS \$           Sarpan \$           US \$           Sarpan \$           US \$           Sarpan \$           US \$           Sarpan \$           US \$           Sar	PREVIOUS EDITION MAY BE USE         22       22       25       26       27       28       29       20       31       32       33       33       36       37         20       0       0       0       0       11       12       23       34       35       36       37         20       0       0       0       0       11       12       23       34       35       36       37         20       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0	D 1 38 39 40 41 42 43 44 45 46 47 48 49 50 NUMBER ATE SERIAL C	SI SZ SJ SH SS SS S7 SS S9 SO 61 62 SJ CH CS FUND DISTRI. PROJ BUTION ECT. $\overrightarrow{e} \overrightarrow{e} \overrightarrow{b}$ DEL DEL JATE CONC DOCUMENT MAT OUANTITY DATE CONC N O P O SI SZ SJ SH SS SS S7 SS S9 SO 61 62 SJ CH CS PROD D DEL DEL DEL DEL DEL DEL DEL DE	66     67     67     71     71     72     74     75     74     75     74     75     74     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     75     <
Green 1348-1, JUL 91           21-2         5         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         16         17         18         19         20         21         18         19         20         21         18         19         20         21         18         19         20         21         21         18         19         20         21         21         18         19         20         21         21         21         21         15         5         10         10         10         20         21         21         20         21         20         21         21         20         21         21         22         21         21         21         21         20         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21         21	PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 26 29 26 31 22 33 34 35 36 37 DD DD DD DD DD DD DD DD	D 138 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPTIONE	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	66         67         67         71         72         71         72         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71<
Grm 1348-1, JUL 91           0102-LF-013-7500           1         2         3         6         7         8         9         10         11         12         13         16         17         18         19         20         21         2         3         7         7         18         9         10         10         10         10         10         10         10         20         21         10         10         10         10         20         21         10         10         10         20         21         10         10         10         20         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10	PREVIOUS EDITION MAY BE USE         22       23       24       25       26       27       28       29       20       31       32       33       34       35       36       37         20       30       QUANTITY	D 1 38 39 40 41 42 43 44 45 46 47 46 49 50 NUMBER ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPTER EXCLIPTER EXCLIPTER ATE SERIAL EXCLIPTER EXCLIPTER ATE SERIAL EXCLIPTER EXCLIPTER ATE SERIAL EXCLIPTER	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	66     67     66     67     71     71     72     72     76     76     71     72     76     76     71     72     76     75     75       1     1     1     1     1     1     1     76     76     75     75       1     1     1     1     1     1     1     1     76     71     75       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1
OPTIM 1348-1, JUL 91           21 2 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21           FROM \$         FSC           PI         M           FROM \$         FSC           VINN         AI           USS         STOCA MANEEP           USS         Sampan / Ly           USS         Sampan / L	PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 28 29 28 31 32 33 24 35 35 37 20 0000011 1 20000001 00000000000000000	D 1 38 39 40 41 42 43 44 45 46 47 48 49 50 NUMBER ATE SERIAL C	SI SZ SJ SH SS SS S7 SS S9 SO 61 62 SJ GH 65 FUND DISTRI. PROJ BUTION ECT. $\overrightarrow{e} \overrightarrow{c} \overrightarrow{b}$ DEL DATE DATE DOCUMENT MAT DUANTITY DATE CONC NO PO $\overrightarrow{D} \overleftarrow{C} \overrightarrow{T} \overrightarrow{C} \overrightarrow{T}$ $\overrightarrow{D} \overleftarrow{C} \overrightarrow{T} \overrightarrow{R} \overrightarrow{C} \overrightarrow{T}$ $\overrightarrow{D} \overrightarrow{C} \overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{D} \overrightarrow{C} \overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{D} \overrightarrow{C} \overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{D} \overrightarrow{C} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{D} \overrightarrow{C} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T} \overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ $\overrightarrow{T}$ T	P S Doc' SD R TS P S Doct ARS TOTS COLLARS TOTS COLL
GOTT 1248-1, JUL 91         0102-LF-013-7500         STOCK NUMBER         NIIN         ALL 10         STOCK NUMBER         USS         USS         UNIT         TYPE OF UNIT         COLSE LOCATON         TYPE OF UNIT         COLSE LOCATON         COLSE LOCATON         UNIT         TYPE OF UNIT         TYPE OF UNIT	PREVIOUS EDITION MAY BE USE PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 26 29 26 31 32 33 34 35 36 37 DD S J OUANTITY COCUMENT N DOCUMENT V COUNT V 204 32 51 SHIP TO SHIP TO W// REIGHT UNIT UF C SHIP TO B UNIT WEIGHT UNIT UF C SHIP TO B UNIT WEIGHT UNIT UF C SHIP TO B UNIT WEIGHT UNIT UF C SHIP TO B CUDE A SHIP TO CUDE A SHIP TO COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATURE COMENCIATUR	D 138 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRE	SI 52 53 54 55 55 55 55 58 59 50 61 62 53 64 65 FUND DISTRI- PROJECT BUTION ECT. $\overrightarrow{E} \xrightarrow{E}$ DATE D D DOCUMENT MAT DATE COND N O P O 3 VV 15 53 $\overrightarrow{T} < \overrightarrow{T}$ $\overrightarrow{PE} \overrightarrow{T} \overrightarrow{R} \overrightarrow{C} (1) 1 \xrightarrow{1}$ $\overrightarrow{PE} \overrightarrow{T} \overrightarrow{R} \overrightarrow{C} (1) \xrightarrow{1}$ $\overrightarrow{PE} \overrightarrow{T} \overrightarrow{C} \overrightarrow{T} \overrightarrow{C} \overrightarrow{T}$ $\overrightarrow{PE} \overrightarrow{T} \overrightarrow{C} \overrightarrow{T} \overrightarrow{T} \overrightarrow{T} \overrightarrow{T} \overrightarrow{T} \overrightarrow{T} \overrightarrow{T} T$	BE OF THE STREET
FORM 1348-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USE 22 23 24 25 26 27 28 29 20 31 32 33 34 35 36 37 DD D D D D D D D D D D D D D D D D D D	D 1 38 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ATE SERIAL EXERTIARY ATE SERIAL EXERCISE SERIAL EXERCISE ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS	SI SZ SJ M SS SS S7 SB S9 SO 61 62 SJ SL 66 $\frac{1}{25}$ FUND DISTRI. PROJ BUTION ECT. $\frac{1}{E} \stackrel{PROJ}{E} \stackrel{DEL}{DEL}$ DEL DOCUMENT MAT. DUANTITY DATE COND. DOCUMENT MAT. DUANTITY DATE COND. $\frac{1}{2}$ VLAL S SJ ST ST $\frac{1}{2}$ CALLS SJ ST $\frac{1}{2}$ CALLS	66     67     67     10     12     12     12     14     15     15       1     10     10     12     12     12     12     12     12       1     10     12     12     12     12     12     12       1     10     12     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     10     12     12     12     12     12       1     12     12     12     12     12     12       1     12     12     12     12     12     12       12     12
Form 1348-1, JUL 91         0102-LF-013-7500         31 2 9 6 7         31 2 9 6 7         81 1         91 1         12 2 9 6 7         91 1         13 2 9 6 7         91 1         14 1         15 1         16 1         17 1         18 1         19 1         19 1         19 1         19 1         19 1         10 1         10 1         10 1         11 1         11 1         11 1         11 1         11 1         12 1         13 2 1         14 1         15 2 1         15 2 1         16 2 1         17 2 1         17 2 1         17 2 1         17 2 1         17 2 2 1 3 1         10 2 1 1         10 2 2 1 1         10 2 2 1 1         11 2 2 2 1 1         11 2 2 2 1 1         11 2 2 2 1 1         11 2 2 2 1 1         11 2 2 2 1 1         11 2 2 2 1 1         11 2	PREVIOUS EDITION MAY BE USE           121 21 24 25 126 [27 28 29 32 31 22 33 34 35 35 37           20         0 004NT/ITY           20         0 004NT/ITY           20         0 004NT/ITY           20         0 004NT/ITY           21         22 25 26 [27 28 29 32 31 22 33 34 35 35 37           20         0 004NT/ITY           20         0 004NT/ITY           21         0 004NT/ITY           22         0 004NT/ITY           23         0 004NT/ITY           24         7420U/ST/IONER           25         0 004NT/ITY           24         74204 37 51           25         0 004NT/ITY           24         0 004NT/ITY           25         0 004NT/ITY           26         0 104NT/ITY           27         0 104NT/ITY           28         0 114NT/ITY           29         0 114           20         0 114           27         0 114           28         0 114           29         0 114           20         0 114           20         0 114           20         0 114           20         0 114	D 138 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ATE SERIAL EXERNITARY ATE SERIAL EXERCISE X JZOA9 1 1 1 MA G SG C N M F C FREIGHT RATE M M M M M M M M M M M M M	SI 52 53 54 55 55 57 58 59 50 61 62 53 64 65 FUND DISTRI. PROJ BUTION ECT. $\vec{E} \in \mathcal{F}$ DEL DEL DEL DATE COND NO PO COND NO PO NO PO COND NO PO CON	66     67     67     71     73     74     75     74     75     74     75     74     75     76     75       1     1     1     1     74     1     76     76     75       1     1     1     1     1     1     76     76     76       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     1     <
FORM 1348-1, JUL 91 0102-LF-013-7500         3       4       6       7       8       9       10       11       12       13       14       16       17       18       19       20       21       14       16       17       18       19       20       21       17       19       26       21       11       12       13       14       14       16       17       18       19       20       21       11       16       17       18       19       20       21       11       16       17       18       19       20       21       11       16       17       18       19       20       21       11       12       15       11       10       14       15       16       17       16       17       16       16       17       16       11       16       16       17       16       16       17       16       16       16       17       16       16       17       17       16       16       17       16       16       17       16       16       16       16       17       16       16       17       17       16       16       17       16 <td>PREVIOUS EDITION MAY BE USE           121 23 24 25 26 27 26 29 26 31 32 33 34 35 36 37           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100</td> <td>D 2 38 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPTENT ATE SERIAL E</td> <td>SI SZ SJ SK SS SS</td> <td>BE OF CHEST TO THE TRANSPORT</td>	PREVIOUS EDITION MAY BE USE           121 23 24 25 26 27 26 29 26 31 32 33 34 35 36 37           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           120 5 33           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100           121 100	D 2 38 39 40 41 42 43 44 45 46 47 46 49 59 NUMBER ATE SERIAL EXCLIPPLEMENTARY ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPPLEMENT ATE SERIAL EXCLIPTENT ATE SERIAL E	SI SZ SJ SK SS	BE OF CHEST TO THE TRANSPORT

· = = = = = = 7 = = = :: 0 : 1 = : 2 = 1 = 15 = = · · · · · · · · · · · · · · · · ·	24125 26 27 25 29 30 31 32 33 34 35 36 37 38 35	40 41 42 43 44 45 46 47 43 49 50 51 52	2 53 54 55 55 57 55 59 50 FT 60 103 FM FC 66 FT 60 FC 70	-1-1-2-1-2-1-2-1-2-1-2-1-2-1-2-1-2-1-2-
FIT FROM 13 FSC NIN ADD 5	DUANTIT DOCUMENTAL WEE	SERIAL SUPPLEMENTARY DEL	UND DISTRA PROU ECTION ECT ECT ECT DEC OF RI ECTION ECT ECT ECT ECT ECT	
TOPE FROM USS SATPANI L	HIL PIL	МАНК Р	OR PROJECT	1011, 89,05 37,1448 (1918)
J V20632	) e 4	9-50 c	D	5
SEHOUSE LOCATION TYPE OF UNIT UNI CARGO PACK	TWEIGHT UNIT UFC	N M F C FFEIGHT BATE		
ESTITUTE DATA JITEM ORIGINALLY REQUESTED) FREIGHT CL	ASSIFICATION NOMENCLATURE	17		
	Allala GREA	VE		ß
SELECTED BY AND DATE	CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DATE 7	- 7 77 INSPECTED BY AND DATE	
ų. <u>2</u>	<u>М</u> _з		s Branch	
E PACKED BY AND DATE		WAREHOUSED BY AND DATE		
MARKS 1X 52B	10 1	Appreved	FOR Im ANST	R
BB	CC	00		AZ3_
TRANSPORTATION CHARGEABLE TO	12 14 BILADING, AWB, OR RECEIVER'S SIG	FF GNATURE (AND DATE)	GG	
Form 1348-1, JUL 91 PF	REVIOUS EDITION MAY BE USED		DOD SINGLE, LINE ITEM RELEA	
G102-EF-013-7300				
			2 53 54 55 56 57 55 59 50 61 62 63 64 65 66 67 66 69 70	71 77 72 74 75 76 77 76 75 52
21 3 4 5 6 7 8 6 10 11 12 13 14 15 16 17 12 19 20 21 22 23	24 25 26 27 28 29 30 31 32 33 34 35 36 37 33 39 OUANTITY DOCUMENT NUMBE > REOUISITIONER DATE		UND DISTRI- PROJ BUTION ECT EE DEL S BUTION ECT EE DATE	DOLLAPS CTS
EN FROM S FSC NUN	15 60 3 V 2632 5188	170B211111		
HOPED FROM (135 SAIPAN LAAZ	SHIP TO PWC NB	RVA		UULIA-S IV -
1/20632		c	C	
AREHOUSE LOCATION TYPE OF UNIT UN CARGO PACK	LE UNIT U F C CUBE	N M F C FREIGHT RATE		
G H I		м	N O P O P	<u>ls</u>
UBSTITUTE DATA (ITEM ORIGINALLY REQUESTED) FREIGHT C	REASSIFICATION NOMENCLATURE	1.05.	WNITED PGT	Docz
	ENCLATURE	Jult R	I IN ENCOURCE BY AND DATE	
SELECTED BY AND DATE	DF CONTAINERISI TOTAL WEIGHT	RECEIVED BY AND DATE	7 91	
3	B7 3		WAREHOUSE LOCATION	
S 0 1 S E PACKED BY AND DATE NO OF	CONTAINERS TOTAL CUBE			
5	3 6		1-PAUSSER	
JJJOZ		ATT I	A A P III	
AA BB	CC DATE SHIPPED	100 HO' Viney		
HINGE DEDTHAKTION NOOLIGO			G0	
		L L L	and the second	
13 TRANSPORTATION CHARGEABLE TO	12 14 BILADING, AWB, OR RECEIVER'S	SIGNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER	

DD Form 1349-1, JUL 91

1.0

	7 1 10 19 25 17 22 23 24 25 75 27	28 2-130 31 32 38 34 25 36 21			. <u>ف مواجد في مواجد في مواجد في مواجد في م</u>	
FROM 18 FSC No. 10		DEPENDENT DA				
55 SATPIN 1	1112 1	Pluc		MARK FOR PROJ	2011 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	DOLLARS (C
1/70/32		AUD 10	7		Ĩ,	
JSE LOCATION TYPE	OF UNIT UNIT WEIGHT		N M F C FREIGH	IC D RATE DOCU DA		E
TE DATA STEM ORIGINALLY REQUESTED	FREIGHT CLASSIFICATIO	N NOMENCLATURE		N 0	P IC P	15
	U ITEM NOMENCLATURE	·			<u></u>	
CTED BY AND DATE	· Gily	RACS		ly.		
TOTED BY AND DATE	TYPE OF CONTAMER	SI TOTAL VEICITI	RECEIVED BY AN	D DATE 7.6	- 93	TE
		3	CEU, XAS	mano	8	
LED BY AND DATE	NO. OF CONTAINERS	TOTAL CUBE	E WAREHOUSED BY	AND DATE	WAREHOUSE LOCATION	N
	5 10	6	S g		10	
			Appiore	u For	2 TRANSFER	· · · · · · · · · · · · · · · · · · ·
	i i foc		00	2	R	1-7-7
NATION ADDRESS	DAT	E SHIPPED				/32
	12		FF			
ORTATION CHARGEABLE TO	14	BILADING, AWB, OR RECEIVER'S	S SIGNATURE (AND DATE)	15 RECEIVER	I'S DOCUMENT NUMBER	
<b>348-1, JUL 91</b> F-013-7500	PREVIOUS E	DITION MAY BE USED		·	DOD SINGLE LINE ITEM F	RELEASE/RECEIPT DOCUMEN
348-1, JUL 91 F-013-7500	PREVIOUS E	DITION MAY BE USED	18 33 40 41 42 43 44 45 46 47 48	49 50 51 52 53 54 55 55 5	DOD SINGLE LINE !TEM F	
1348-1, JUL B1 F-013-7500 F-013-7500 F-014-7500 F-014 F-014 F-014 F-014 F-014 F-014 F-014 F-014 F-014 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-01400 F-014-7500	PREVIOUS E	DITION MAY BE USED	8 39 40 41 42 43 44 45 46 47 48 MABER E SERIAL XIPPLEMEN SERIAL XI ADDRES	49 50 51 52 53 54 55 56 5 TARY - FUND DISTRI- S S	DOD SINGLE LINE !TEM P 7 (55 55 65) 61 62 55 (64 55 65 67 56 PROJ ECT	
348.1, JUL 81 F-013.7500	PREVIOUS E	DITION MAY BE USED 28 29 30 31 12 33 34 35 36 37 3 TY DOCUMENT HY RECUISITIONER DATI 14 20/6 32 157 6 PMC	18 33 40 41 42 43 44 45 46 47 48 IMBER E SERIAL SUPPLEMEN 67 70761 1 G 56	49 50 51 52 53 54 55 56 5 TARY FUND DISTRI- S 5 5 MARK FOR PROJEC		
348.1, JUL 81 F-013.7500 1 F-013.7500 1 F-013.750 1 F-013.7500 1	PREVIOUS E	DITION MAY BE USED 28/29 30 31 32 33 34 35 36 37 33 TY DOCUMENT NU 28/PEOUSTROLEF DATI 11/22/632 15/6 PM C 11/22/632 15/6 DATI	133 40 41 42 43 44 45 46 47 48 MBER E SERIAL SUPPLEMEN CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION CONSTRUCTION	45         50         51         52         53         54         55         55           TARY         FUND         DISTRI-         BUTION           S         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50	DOD SINGLE LINE !TEM F           7 55 55 63 61 62 63 64 65 66 67 69           PROU ECT         ECD         U           ECT         ECD         U           FILD         DEL         V           DATE         V         V	
248.1, JUL 91 F-013.7500	PREVIOUS E	DITION MAY BE USED 28 29 29 33 32 33 34 35 36 37 3 TY DOCUMENT NU REQUISITIONER DATI 14 206 32 157 8 PMC USE UF C	8 39 40 41 42 43 44 45 46 47 48 MABER E SERIAL XIPPLEMEN CONSTRUCTION 671 70761 1 1 G 56 N M F C FREIGHT	4 50 51 52 53 54 55 56 TARY FUND DISTRI- S 50 51 52 53 54 55 56 BUTION BUTION C D RATE DOCUM	DOD SINGLE LINE !TEM F           7         55         55         61         62         55         66         67         65           PROU ECT         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #	
348.1, JUL 91 F-013-7500 Pi FOM & FSC NIN I 1/50 00-223-L S S/JT/PAN C LOCATION CARGO DATA (ITEM ORIGINALLY REQUESTED)	PREVIOUS E		11 11 11 11 11 11 11 11 11 11	AS SS S		
348.1, JUL B1         F-013-7500         It 6       1         Pin       M         STGC- M:MBEF         NIN         It 150         D1-223-4         STT PAN         V         FSC         NIN         It 150         D1-223-4         STT PAN         V         STT PAN         CARGE         CARGE         DATA (ITEM ORIGINALLY REQUESTED)	PREVIOUS E	DITION MAY BE USED	11 20 41 42 43 44 45 46 47 48 11 20 41 42 43 44 45 46 47 48 11 20 10 11 20 10 12 10 10 1	A9 50 51 52 53 54 55 56 5 TARY FUND DISTRI- S S S F DISTRI- MARK FOR PROJECT MARK FOR PROJECT C D DAT	DOD SINGLE LINE !TEM F           7         55         63         61         62         63         64         65         65         67         69           PROJ ECT         RECD ECT         U         FECD DEL         U         FF           DATE         PROJ DATE         1         1         1         1         1           CT         RECD ECT         U         FF         1         1         1         1           PROJ ECT         R         DOL         N         N         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 </td <td>RELEASE/RECEIPT DOCUMEN</td>	RELEASE/RECEIPT DOCUMEN
348.1, JUL 91 F-013-7500 ROM 8 FSC NIN ROM 8 FSC NIN 1/50 05-223-L S S/JT PAN 2 LOCATION ELOCATION DATA INTEM ORIGINALLY REQUESTED)	PREVIOUS E	DITION MAY BE USED 28 (29 30 31 32 33 34 35 36 37 3 TY 28 FEOUSTROLEF DOCUMENT NU 28 FEOUSTROLEF DAT 11/22/632 15/1 PM CUBE K NOMENCLATURE R T. S	Ba 33 40 41 42 43 44 45 46 47 48 MBER E SERIAL SUPPLEMEN CO SS ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES M F C FREIGHT M	49     50     51     52     53     54     55     55       TARY     FUND     DISTRI-       S     50     50     50     50       MARK     FOR     PROJE       C     D       RATE     DOCUM       N     O	DOD SINGLE LINE ITEM F	
348.1, JUL B1         F-013.7500         1       5         P0       1         P0       1 <td>PREVIOUS E</td> <td>DITION MAY BE USED 13/29 30 31 32 33 34 35 36 37 3 TY DOCUMENT IN REQUISITIONER DATI 14/20/6 32 15/1 PM C 14/20/6 32 15/1 PM C 14/20/6 32 15/1 NOMENCLATURE R T S M 0/LY</td> <td>8 39 40 41 42 43 44 45 46 47 48 MABER E SERIAL XIPPLEMEN CONSTRUCTION 671 70761 1 1 G 56 0 N M F C FREIGHT M M M M M M M M M M M M M</td> <td>AS SO ST S2 S3 S4 S5 S5 S TARY FUND DISTRI- S S S S5 S</td> <td>DOD SINGLE LINE !TEM F           7 55 55 65 61 62 55 64 65 65 67 65           PROJ ECT         E           ECT         E           DEL         DEL           DATE         E           COND         DU           P         D           I!!SPECTED BY AND QAT</td> <td></td>	PREVIOUS E	DITION MAY BE USED 13/29 30 31 32 33 34 35 36 37 3 TY DOCUMENT IN REQUISITIONER DATI 14/20/6 32 15/1 PM C 14/20/6 32 15/1 PM C 14/20/6 32 15/1 NOMENCLATURE R T S M 0/LY	8 39 40 41 42 43 44 45 46 47 48 MABER E SERIAL XIPPLEMEN CONSTRUCTION 671 70761 1 1 G 56 0 N M F C FREIGHT M M M M M M M M M M M M M	AS SO ST S2 S3 S4 S5 S5 S TARY FUND DISTRI- S S S S5 S	DOD SINGLE LINE !TEM F           7 55 55 65 61 62 55 64 65 65 67 65           PROJ ECT         E           ECT         E           DEL         DEL           DATE         E           COND         DU           P         D           I!!SPECTED BY AND QAT	
348.1, JUL 81 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-01-12-13-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-17 F-01-12-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	PREVIOUS E	DITION MAY BE USED	R 33 40 41 42 43 44 45 46 47 48 IMBER E SERIAL SUPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES AD	A9 50 51 52 53 54 55 56 5 TARY FUND DISTRI- S 25 50 51 BUTION MARK FOR PROJEC C D RATE DOCUM N 0 V V DATE 7 7 6	DOD SINGLE LINE ITEM F	
348-1, JUL 81 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-011-7500 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-13-14-15 F-01-12-12-14 F-01-12-14-14-15 F-01-12-14-14-14-14-14-14-14-14-14-14-14-14-14-	PREVIOUS E	DITION MAY BE USED	ADDRES	49         50         51         52         53         54         55         56         57           TARY         FUND         DISTRI- BUTION         BUTION         1         1         1           I         I         I         I         0         0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1		
348.1, JUL 81 F-013-7500 F-013-7500 F-013-7500 F-013-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-014-7500 F-0	PREVIOUS E	DITION MAY BE USED	R J3 40 41 42 43 44 45 46 47 48 IMBER E SERIAL C SUPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES	AS SS IS SE SS SA SS		
348.1, JUL 91         F-013-7500         It 6 2 3 2 C III 12 13 III 15 16 12         Pin M         STOCH III 12 13 III 15 16 12         Pin M         FSC         NIN         IT 150         DB-223-4         STIT PAN III         IT 150         DB-223-4         STIT PAN III         IT 150         DB-223-4         IT PAN III         IT 150         DB-223-4         IT PAN III         IT PAN III         IT PAN IIII         IT PAN IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	PREVIOUS E	DITION MAY BE USED 13 [29 30 31 32 ] 33 [34 ] 35 [35 ] 35 ] 37 ] 3 TY DOCUMENT HU REQUISITIONER DATI 14 20/6 32 1 57 1 PMC UNIT UNIT UNIT UNIT UNIT UNIT U F C L NOMENCLATURE R T S M D L Y 1 TOTAL CUBE 6	R 33 40 41 42 43 44 45 46 47 48 IMBER E SERIAL SUPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES AD	AS SS S		
348.1, JUL 01 F-013.7500	PREVIOUS E	DITION MAY BE USED 28 (29 30 31 12 33 34 35 36 37 33 TY DOCUMENT HY RECUSSIONER DATI 11/20/6 32 1 57 18 PMC 11/20/6 32 1 57 18 PMC UNIT CUBE NOMENCLATURE R T S M & LY 3 TOTAL WEIGHT 6	AND ALL ALL ALL ALL ALL ALL ALL ALL ALL AL	AS SS ST SZ SS SA SS SS S TARY FUND DISTRI- S S SS SS ST FUND DISTRI- BUTION MARK FOR PROJECT C D RATE DOCUM N O V DATE 7 - 7 - 9 AND DATE 7 - 7 - 9 AND DATE 7 - 7 - 9 AND DATE 7 - 7 - 9	DOD SINGLE LINE !TEM F           7         55         65         61         62         63         64         65         65         67         69           PROJ ECT         E         B         DEC         U         F:	
348.1, JUL 81         F-013-7500         Pin M       STOC-10, 100         Pin M       FSC         NIN         ITSD D0-223-L         SOM       STOC-223-L         CARGE       G         DATA (ITEM ORIGINALLY REQUESTED)       G         TED BY AND DATE       BB         VIODATE       BB         NATION ADDRESS       BB	PREVIOUS E	DITION MAY BE USED 13/29 30 31 32 33 34 35 36 37 3 TY DOCUMENT NU REQUISITIONER DATI 14/20/6 32 1 57 4 PMC UNIT CUBE K NOMENCLATURE R T S M 0 L Y 1 TOTAL WEIGHT 3 TOTAL CUBE 6	R 13 40 41 42 43 44 45 46 47 48 IMBER E SERIAL SLIPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES A	AS SS IS SZ SS SA SS SS S TARY FUND DISTRI- S Y FUND DISTRI- BUTION MARK FOR PROJECT C D RATE DOCUM DATE DOCUM V V L V L TARY FOR PROJECT D D D D D D D D D		RELEASE/RECEIPT DOCUMEN
348.1, JUL 81         F-013-7500         Istation         Pint M         Pint M         FSC         NIN         ISTOC IN 12 13 14 15 16 17         Pint M         FSC         NIN         ISTOC IN 12 13 14 15 16 17         Pint M         FSC         NIN         ISTOC IN 12 23 - 4         NIN         ISTOC IN 12 23 - 4         ISTOC IN 12 23 - 4         ISTOC IN 12 23 - 4         ISTOC IN 11 15 20 23 - 4         ISTON         SITT PARM INTERPOLIC         INTED BY AND DATE         ISTOC IN ADDRESS	PREVIOUS E	DITION MAY BE USED 28 29 30 31 32 33 34 35 36 37 3 TY DOCUMENT HU REDUISTINGER DATI UF C UF C L NOMENCLATURE R T S M J L Y 3 TOTAL CUBE 6	R 33 40 41 42 43 44 45 46 47 48 IMBER E SERIAL SUPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES AD	AS SS S		RELEASE/RECEIPT DOCUMEN
348.1, JUL 81         F-013.7500         I.I. 5.7         P., M         STOC: W.MBEF         P., M         STOC: W.MBEF         NIN         STOC: W.MBEF         STOC: W.MBEF         NIN         STOC: W.MBEF         NIN         STOC: W.MBEF         DATA (ITEM ORIGINALLY REQUESTED)         TED BY AND DATE         D BY AND DATE         BB         IATION ADDRESS         RTATION CHARGEABLE TO	PREVIOUS E	DITION MAY BE USED	All 33 40 41 42 43 44 45 46 47 48 MBER E SERIAL X SUPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES	AS SO SI SZ SJ SA SS SA		RELEASE/RECEIPT DOCUMEN
348.1, JUL B1         F. 013-7500         I. I. S. 1.12 I3 I2 IS I6 I1         P. 1.12 IS IC	PREVIOUS E           18         18         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         8         12         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14	DITION MAY BE USED	R 33 40 41 42 43 44 45 46 47 48 INBER E SERIAL SLIPPLEMEN ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES ADDRES A	AS SS IS SE SS SA SS		RELEASE/RECEIPT DOCUMEN

- 71 71 41 51 4 7 8 910 11 12 13 14 15 16 - 70 8 14 51 51 7 8 910 11 12 13 14 15 16 - 70 8 14 510 10 10 10 10 10 10 10 10 10 10 10 10 1	17 15 19 22 21 22 23 24 23 25 27 23 2 5 2 20 22 23 24 25 25 27 23 2 5 2 20 22 23 24 25 25 27 23 2 5 2 20 22 23 24 25 25 27 23 2 5 2 20 22 23 24 25 25 27 23 2 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 30 31 32 33 34 35 36 31 36 <u> </u>	39140 41 42 43 44 45 41 IBER SERIAL	47 - 28 49 50 51 52 53 5 PLEMENTARY DDRESS	4 55 55 57 25 59 50 51 62 62 62 DISTR: PPOJ RUTION ECT E DEL DATE	41e: 146 67 68 68 70 71	
	2646573 (NDOD/	120632518	1703				
USS Saipani	(4+A-Z) 7	WC NOT	VA		95-15	325	
AFEHOUSE LOCATION	E OF UNIT UNIT WEIGHT U RGO PACK C	NIT UFC	N M F C FI	IC REIGHT RATE	D DOCUMENT MAT DATE COND	14	
G			м	N	0 5	R	5
Sestingle data area Ohiomally Reducite	U NGN	REG		· · ·			
	X	DESSICIANT	ACTIVA	TED	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		
SELECTED BY AND DATE	TYPE OF CONTAINERIS	TOTAL WEIGHT	RECEIVED	BCAND DATES	INSPECTE	D BY AND DATE	
U 1 S PACKED BY AND DATE	2 NO OF CONTAINERS	3 TOTAL CUBE		SED SY AND DATE	WAREHOL	SE LOCATION	
-+	/		A S S				
A A A A A A A A A A A A A A A A A A A	5	6	<u> </u>	PDROVED	FOR TOC	INSFED	<b>f</b>
: 188	: • •		00		E		= AZ3
RST DESTINATION ADDRESS	DATE S	HPPED					
	12	DING AWB OR RECEIVER'S	FF SIGNATURE (AND DATE	15 f	GG RECEIVER'S DOCUMENT NUMB	ER	
					000 00015		DECENT COOLUMENT
D Form 1348-1, JUL 91 N 0102-LF-013-7500	PREVIOUS EDIT	ION MAY BE USED			DOD SINGLE	LINE ITEM HELEASE	RECEIPT DOCUMENT
·				<u> </u>			
CC B: M STOCK NUMB	7 18 19 20 21 22 23 24 25 26 27 28 25 EP	30 31 32 33 34 35 36 37 38 DOCUMENT NUM	39 40 41 42 43 44 45 46 BER × SUPF	47 48 49 50 51 52 53 5 LEMENTARY - FUND D	4 55 56 57 58 59 60 61 62 63 6 NSTRI- PROJ - REC'D	1 65 66 57 68 65 70 71 7	12 12 24 12 16 17 18 17 18 17 18 1
SEAT FROM & FSC NIIN	ADD ONIC COA	AREQUISITIONER DATE	SERIAL SERIAL			A0746	DOLLARS (CTS
	SHIP TO			MARK FOR	PROJECT	<u>l: l i i i i i i i i i i i i i i i i i i</u>	
USS SaiPAA	(L+1A-2)	PWC	Q - 56				
AREHOUSE LOCATION	E OF UNIT UNIT WEIGHT U	NIT UFC		C IEIGHT RATE	D DOCUMENT MAT QUANTIT DATE COND	Y	E
						P	IS
BSTITUTE DATA ITEM OPIGINALLY REQUESTED	TH II IJ FREIGHT CLASSIFICATION NO	MENCLATURE	M				
	U ITEM NOMENCLATURE		1.				48
SELECTED BY AND DATE	X WAT	TOTAL WEIGHT	REGRIVED	IDNITED	INSPECTE	D BY AND DATE	
	(N		R E C U			-	
U 1 S PACKED BY AND DATE	2 NO OF CONTAINERS	3 TOTAL CUBE		ED BY AND DATE	WAREHOU	SE LCCATION	1
	5	6	S S S 9		10		
WARKS 1X55C	     		: ; ;	APP,	DOVED FOR	TRANS	FER
BB IST DESTINATION ADOBESS	CC DATE SH	IIPPED	DD				H23
TRANSPORTATION CHARGEABLE TO	12 14 B/LA	DING, AWB. OR RECEIVER'S S	FF SIGNATURE (AND DATE)	15 F	GG RECEIVER'S DOCUMENT NUMB	5	0
							PECENT DOD HIENT

PREVIOUS EDITION MAY BE USED

e i e i v j i e i e i com reciperative reciperative estative estative estative estative estative estative estat	146145148148155155155155155155155155155155155155155
EROW 13 STOTE NUMBER SEA ADD BUT OUAVIETY DOCUMENT NUMBER SEA ADD BUT OUAVIETY DOCUMENT NUMBER SEA ADD BUT OUAVIETY	
CLERED 11 185-1 171-7833 1 1 1 1-201-82-5/87.7074 1	I на 1 на
55 SATPAN LHAL PLAC	- (53.07
1/20/32 E NORVA	95-1-52T
HOUSE LOCATION THE OF UNIT UNIT UFC NWECHT UNT UFC NWECHT CUBE	FREIGHT RATE DODUMENT WAT OUANT.TY DATE DOND
TUTE DATA HTEM OPIGINALLY RECUESTED, FREIGHT CLASSIFICATION NOMENCLATURE	
	······································
ELECTED BY AND DATE TYPE OF CONTAINERIS, TOTAL WEIGHT	ED BY CODATE
2 3 E S Z WAREH	DUSED BY BOC DATE
×5 / 16 / 19	proved TOR TRUNKFIR
ESTINATION ADDRESS DATE SHIPPED	
12	the contract of the contract o
NSPORTATION CHARGEABLE TO 14 BILADING AWB. OR RECEIVER'S SIGNATURE IAND DA	TE) 15 RECEIVER'S DOCUMENT NUMBER
T 1348-1, JUL 91 PREVIOUS EDITION MAY BE USED	DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT
1 4 5 6 7 8 9 10 11 12 13 14 15 15 15 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	46 47 48 49 50 51 52 53 54 55 55 57 58 55 60 51 62 63 64 65 65 60 50 70 70 70 70 70 70 70 70 70 70 70 70 70
	ADDRESS
570 02 258 563 CN 00001 101 106 32 76100	
USS Salpan (L+1A-21 P.A	MARK FOR PROJECT TOTAL PRICE
V2063- TWC	- 95-15326
USE LOCATION TYPE OF UNIT UNIT UNIT UFC NMFC F	REIGHT BATE DOCUMENT MAT OUANTITY
	UATE CORU
TE DATA (ITEM ORIGINALLY REQUESTED) FREIGHT CLASSIFICATION NOMENCLATURE	2 A) O A O A
ITEM NOMENCLATURE	v
CTED BY AND DATE IT YE OF CONTAINED IT OTHER TO CLEANET	Z
A A A A A A A A A A A A A A A A A A A	BYAND DATE INSPECTED BY AND DATE
LED BY AND DATE NO OF CONTAINERS TOTAL CLOSE	non Brande
2 VEDRAREHOU	SED BY AVDATE C
5 6 Styles	10
×1P7	APROVED FOR TRAnsfer
TINATION ADDRESS DATE SHIPPED	the think
20RTATION CHARGEABLE TO 12 FF 14 B/LADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER
[348-1_JU] 81	
F.013.7500 PREVIOUS EDITION MAY BE USED	DOD SINGLE LINE ITEM BELETSE/BECEIPT DOCUMENT

· 7 21 4 51 51 51 51 51 51 51 51 12 13 144 15 15 151 13	15 72 74 22 23 24 25 26 27 28 23 36 31 32 33 34 32 36 3°	· 33, 29 40 41 42 43 44 45 46 47 4	8 49 50 51 52 53 54 55	56 57 58 59 60 61 52 65 64 65		
COC PROM & STOCK WEEF	ADD DUBY CUANTITY DOCUMENT			N ECT E DATE	en   R.   1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	
USS Salpan 1	(2+14-21 SHIP TO PWC		MARK FOR	015-15	728	DOLLARS ICTS
AAREHOUSE LOCATION	B UNIT UNIT WEIGHT UNIT U.F.C PACK CUBE	N M F C FREIGH	C D IT RATE DC	CUMENT MAT QUANTITY DATE CONDI		
			N. C	P ()	E S	
E JG J SUBSTITUTE DATA WTEM ORIGINALLY REQUESTED/	FREIGHT CLASSIFICATION NOMENCLATURE	<u>jt</u> <u>10</u>			1	
τ	U ALCA ZES	ESP-;	× :			
W	X ETCH SOI	PTICN RECEIVED BY AN		IN:SPECTED B	AND DATE	
S H   1	2 BT 3	R WC W S	7-6-5 2			
P S PACKED BY AND DATE	NO OF CONTAINERS	E S	frang dele		LOCATION	
REMARYS /V/OL	19	V  3	APROU	ED FOIL	TEansFel	2
AA ¹ BB FIRST DESTINATION ADDRESS	CC DATE SHIPPED			E C		
	12	FF				
3 TRANSPORTATION CHARGEABLE TO	14 B/LADING AWB OR RECEIVER	R'S SIGNATURE (AND DATE)	15 RECE	IVER'S DOCUMENT NUMBER		
D Form 1348-1, JUL 91 /N 0102-LF-013-7500	PREVIOUS EDITION MAY BE USED			DOD SINGLE LIN	E ITEM RELEASE/RE(	CEIPT DOCUMENT
					^	
1 2 3 4 5 6 7 P 9 10 111 12 13 14 15 16 17 18 1 DCC AI M 310CK NUMBER DCE1.1 FROM \$ FSC NIIN	9 20 21 22 23 24 25 26 27 28 28 9 31 32 33 34 35 36 37 ADD DOUANTITY DOCUMENT NO ADD DESS AUTOMONIAL AND DOCUMENT NO ADD DESS AUTOMONIAL AND DATE AND AUTOMONIAL AND DATE AND AUTOMONIAL AND AUTOMONIALANA AUTOMONIALANA AUTOMONIALA	38 33 40 41 42 43 44 45 46 47 48 UMBER TE SERIAL H 22 43 44 45 A6 47 48 SUPPLEMEN ADDRES ADDRES	49 50 51 52 53 54 55 5 NTARY - FUND CISTRI SS	6 57 58 59 60 61 52 53 54 54 PROJ V ECT	66 67 68 68 77 71 72 73	VLT PRICE
HERED FROM USS Saipan LLH	14-2) SHIP TO PWC	)	MARK FOR PR	95- 15-	328[	DOLLARS 1215
V20632	UNIT UNIT WEIGHT UNIT UFC PACK UNIT WEIGHT CUBE	N M F C FREIGH	C D T RATE DC	CUMENT MAT QUANTITY DATE COND		
G	H	LM	N O	P [G		
SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)	WWW STE ADNES.	VE Jer	V1133P	5.57		
	TEM NOMENCLATURE	Tey Ten.	1A220	INSPECTED E	AND DATE	
SELECTED BY AND DATE	TYPE OF CONTAINER(S) TOTAL WEIGHT	R	6- 95	-		
S H H	2 CN 3		BY AND DATE	REHOUSE	LOCATION	
P S PACKED BY AND DATE	NO OF CONTAINERS TOTAL CODE	E A S				
	5 6	9	0000	and FRIR	Transt	en
REMARKS X 1 GT		-7	<u> </u>	EE		<u> </u>
AA '9B	CC DATE SHIPPED	00	<i></i>			<b>a</b> j
LEINS DESTIMATION NEULERS		ee		63		
11 TPANSPORTATION CHARGEABLE TO	12 14 BILADING, AWB OP RECEI	VER'S SIGNATURE (AND DATE)	15 RE	CEIVER'S DOCUMENT NUMBE		
	CREVIOUS EDITION MAY BE USE	D		DOD SINGLE	LINE ITEM RELEASE	RECEIPT DUCUMENT
DD Form 1345 JUL VI						

0D Form 1345-1, JUL E SIN 0102-LF-013-7600

2 Tradis en tradistrationalita representation	\$20;0+120;05;05;05;125;127;125;29;30;01;32;33;34;135;36;37;38;05;40;40;40;40;40;40;40;40;40;40;40;40;40;	K   S1   S2   S4   S1   S5   S5   S5   S2   S2   S2   S2   S2
793000F00493	ADD BY COLORY CLEER DATE SERIAL SERIAL CORES	Av. Li PUNCI DISTR         PRO.         IPEO.         IPEO.
		MARK FOR PROJECT COLUMN TO THE PROJECT
IRS SAIPAN (1 H	A.2) DIN NORFOLK	
AFEHOUSE LOCATION	INT UNIT UNIT UFC NMFC FREIGHT RAT	TE DOCUMENT MAT QUANTITY
CARGO F	ACK CUBE	DATE CONN
BSTITUTE DATA IITEM ORIGINALLY REQUESTED:	FREIGHT CLASSIFICATION NOMENCLATURE	
	RES	v
	× DRY INK PLUS	iy
SELECTED BY AND DATE	TYPE OF CONTAINERIS) TOTAL WEIGH	11 TT I I INPECTED BY AND DATE
	BT	and a second
	2 3 E Storata	DEATE
· · · ·	De The APPI	POVED FOR TRANSFER
MARKS		
GXINC		There is usn
AA BB	cc DD (77	BY DIRECTION
TAST DESTINATION ADDRESS	DATE SHIPPED	
3 TRANSPORTATION CHARGEARLE TO	12 FF 14 B/LADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER
		A
	PREVIOUS EDITION MAY BE USED	DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT
4 0 102-LP-0 13-7500		
"Alantikalari", Alahadan 4 Manakanan akaranakan Jawa (asir) akarana jarikana akar		
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 DOC RI M STOCK NUMBER	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 5 0 0000000000000000000000000000000000	XI 51 22 53 54 55 55 57 56 59 60 61 02 651 66 65 66 66 69 70 77 73 74 75 76 77 70 79 60           YI FUND DISTRIP           PUND DISTRIP           PRO D
ERT FROM & FSC NIIN		BUTADN ECT CTS DEL Q DOLLARS CTS
6810 01129374	2 RT 24 V2063251927052	
PPED FROM		MARK FOR PROJECT TOTAL PRICE
USS SAIPAN LHA-2	PWC NORVA	
1171627		
CARGO P/	CK CUDE	DATE COND
BSTITUTE DATA IITEM ORIGINALLY REQUESTED)		
	alon RES	t tv
	TEM NOMENCLATURE	
	STANDARD SODIUM CHIORIDE SOLUTIO	DN IV
SELECTED BY AND DATE	TYPE OF CONTAINERIS) TOTAL WEIGHT	TE INSPECTED BY AND DATE
S DAGKED BY AND DATE		
E FACKED BY AND DATE		
•		10
MAFKS		ADDA. VED END THE
The second second		MPROVED FOR TRANSFER
	1	· · · · · · · · · · · · · · · · · · ·
2446=2100	CC 'CD	RV. ALPERTINGAL
244 C BB	CC CD	B4-011-REEL-T-1.6N
244 6 2 BE	CC CD C	By-OJI-R-EE-I-T-1-GN
21/26 2 BB	CC CD DATE SMIPPED 12 FF	By-oj-REEL-T-1-GN
AST DESTINATION ADDRESS	CC. CD DATE SHIPPED 12 14 BILADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE)	B-4-OH-R-EEL-T1-GA JADD-CAUDE 3 IS RECEIVER S DOCUMENT NUMBER

Form	1348-1.	JUL 91
0102	LF-013	-7500

	2 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	36 35 40 41 42 43 44 45 45 47 48 49 50 51 52 5	3 54 55 55 57 59 59 59 60 60 67 63 64 44 44 44 44 44 44 44 44 44 44 44 44	
FROM IS FSC NITH ADE	BODDER DOCUMENTAL	SUMPER SUPPLEMENTARY FUN		
USS Saipan /L+/A. V70632	21 PWC	C SO	PROJECT 95-1537	
G H I	CLASSIFICATION NOMENCLATURE	N M F C FREIGHT PATE	DOCUMENT MAT OUANTITY DATE COND	s S
UF/JEM NO	ENCO PA	auis No.5.	UNITIO OFF	Dec/
SELECTED BY AND DATE         TYPE           1         2           PACKED BY AND DATE         NO. OI	OF CONTAINER(S) TOTAL WEIGHT	R R C U E S 7 7 C C S 7 C C S 7 C C S 7 C C S 7 C C S 7 C C S 7 C C S S 7 C C S S S S	INSPECTED BY AND DATE	<u>clon</u>
3°×107	And by the cost		TO	
BB BB	CC DATE SHIPPED	Dendard	ed Joiz Incm	sfere 2 AZZ
INSPORTATION CHARGEABLE TO	12 14 BILADING, AWB, OR RECEIVER'S S	FF SIGNATURE (AND DATE) 15 R	GG ECEIVER'S DOCUMENT NUMRER	
m 1348-1, JUL 91 P 32-LF-013-7500 P	REVIOUS EDITION MAY BE USED		DOD SINGLE LINF ITEM RELEA	
1         1         3         3         10         11         12         13         14         15         15         19         20         21         22         23         2           R.         M         STOCY NUMBER         NINA         ADD         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M <td< td=""><td>25 26 27 28 29 30 31 32 33 44 35 36 37 38 39 OUANTITY DOCUMENT NUMBER DOCUMENT NUMBER DATE DOCUM</td><td>40 41 42 43 44 45 65 47 48 49 50 51 52 53 54 55 R SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL</td><td>36         57         59         60         61         62         63         64         65         66         67         66         69         71         71           RI-         PROJ ON         ECT         E         FEO'D DEL DATE         U         FI         FI</td><td>72 (73 14 (75 (75 (77 76 79 (50) </td></td<>	25 26 27 28 29 30 31 32 33 44 35 36 37 38 39 OUANTITY DOCUMENT NUMBER DOCUMENT NUMBER DATE DOCUM	40 41 42 43 44 45 65 47 48 49 50 51 52 53 54 55 R SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL K SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL	36         57         59         60         61         62         63         64         65         66         67         66         69         71         71           RI-         PROJ ON         ECT         E         FEO'D DEL DATE         U         FI         FI	72 (73 14 (75 (75 (77 76 79 (50) 
USS Saipan (L+A-7) V70632	PWC	P-JE C D	95-15330	
SELOCATION	VEIGHT UNIT UFC N CUDE J K L	M F C FREIGHT RATE DC		5
	NATURE RES INTURE RES M Reading to	or Fardain Iv		<b>8</b> 1
ECTED BY AND DATE	DITAINERIS) TOTAL WEIGHT	RECEIVED BY AND DATE RECEIVED BY AND DATE C U 7-0-2007	HISPECTED BY AND DATE	
	ITAINERS TOTAL CUBE	V WAREHOUSED BY AND DATE		
1 X 1 SC BB	CC DATE SHIPPED	APPRoved	Haz Transford	1727 I
PORTATION CHARGEABLE TO	12 14 BILADING AWB OR RECEIVER'S SIGN	FF NATURE (AND DATE)	36 IVER 5 DOCUMENT NUMBER	
1348-1, JUL 91 PRE	VIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM BELEASE	RECEIVER T

	7 - 22   23   24   25 - 26   27   26   25   32   37   32   33   34   35   37   37   38   3	9 40 41 42 43 44 45 48 47 45 49 50 51	152 52 54 55 55 57 58 59 60 51 51 52 55 54 55 154 157 55 55 171	فعاعد فبأساط أبارتر ترابر
TRID PHON IS FEE TRID TANS 274	ACD D B CLART TY DCCUMENT NUMBER SUBJECT D CONTRACT DATE	SERIA LE ADORESS	FUNCICISTA PROJ EST CE RECO DE R. BUTION EST GE CE S	DC c1 4P3 [C18
USS Sa, pan Herik V20637	p-21 PWC	W - TX	FOR PROJECT	1014, RR 02 001, 205
AREHOUSE LOCATION TYPE OF UNIT CARGO PACK CARGO PACK G H		M M F C FREIGHT RATE	DOCUMENT MAT QUANTITY DATE COND	5 5
U 17EN	NOMENCLATURE		:	
SELECTED BY AND DATE	BRight Einse YPE OF CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DATE	HISPECTED BY AND DATE	
S PACKED BY AND DATE	BT 3 O OF CONTAINERS TOTAL CUBE	R E U U V V V V V V V V V V V V V V V V V	B MABEHOUSE LOCATION	
JARKS 5	6	9 9	10	
BE	CC DATE SHIPPED		PPITWOO Jon Trans	FPR AZ3
	12	FF	60	
a mans-of failon changeable to	14 BILADING AWB OF RECEIVER'S SIG	NATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER	2
01C2-LF-013-7500	PREVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RELEAS	
Bit         Bit <td>22 12 24 25 26 127 28 28 30 31 32 33 34 35 36 37 38 39 50 by OUANTITY DOCUMENT NUMBER 22 REOUSTIONER DATE 32 REOUSTIONER DATE 33 7 00001 V 7 2632 5 10</td> <td>40 41 42 43 44 45 46 47 48 49 50 51 B SERIAL TO AS B DO AS B</td> <td>52 33 54 55 56 57 59 59 60 61 62 63 64 65 66 61 62 62 7 7 0 FUND DISTRI- PROJ BUTION ECT</td> <td></td>	22 12 24 25 26 127 28 28 30 31 32 33 34 35 36 37 38 39 50 by OUANTITY DOCUMENT NUMBER 22 REOUSTIONER DATE 32 REOUSTIONER DATE 33 7 00001 V 7 2632 5 10	40 41 42 43 44 45 46 47 48 49 50 51 B SERIAL TO AS B DO AS B	52 33 54 55 56 57 59 59 60 61 62 63 64 65 66 61 62 62 7 7 0 FUND DISTRI- PROJ BUTION ECT	
VSS Saipan (144A V20637	-7/B	PJE c	FOR PROJECT	
AFEHOUSE LOCATION TYPE OF UNIT CARGO PACK G H G H		M F C FREIGHT RATE		5
U ITEM	MGA) REG		1 1 V	
SELECTED BY AND DATE	PE OF CONTAINERIS) TOTAL WEIGHT	CLEANER RECEIVED BY AND DATE	INSPECTED BY AND DATE	
	BT	R E C U E S 7 T T T T	- 6- 55 B	
E PACKED BY AND DATE N	D OF CONTAINERS TOTAL CUBE	V E AWAREHOUSED BY AND DAT	WAREHOUSE LOCATION	
SMARKS	6	$T_{9}$	10 10 Ing Trans	for
/X/4/	cc	DD	TPHILORE FOR TRANS	S. MZR
T DESTINATION ADDRESS	DATE SHIPPED			81
RANSPORTATION CHARGEABLE TO	12 14 B/LADING, AWB, OR RECEIVER'S SIG	FF GNATURE (AND DATE)	GG	
Form 1348-1, JUL 91 90102-LF-013-7500	PREVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RELEA	SEIRECEIPT DOCUMENT

DOC P VI STOCKNUMBER	11 19 22 22 22 22 22 22 25 27 29 29 30 31 32 33 34 35 36 	2° 35 33 40 41 42 43 44 45 45 47 45 4 T.N. (MBER SUPPLEMENT	9 50 51 52 53 54 55 56 57 58 59 50 50 41 60 60 64 65 66 60 169 6 ARY LI FUND DISTRIC PROJ C REC D L B	alorgi ve refera navnej rači rači reči rači 1977 <u>– ER ST</u>
ICEN FROM & FSC TION		DATE SERIAL TELE ADDRESS	BUTION ECT E COLLECT	
USS SATPAIN 2	LHAZ Puc	Q.50		DOLLARS 1519
A VARE LOCATION V2063	B NORU	A NMEC FREIGHTE	ATE DOCUMENT MAT QUANTITY	E
		М	DATE COND	S
SUBSTITUTE CATA IITEM ORIGINALLY REQUESTED:	U ALAN REG		:	• معرب
Y	x/uBp	Ret AND		
SELECTED BY AND DATE	2 NO OF CONTAINERS I TOTAL CUBE		7-6-8 Repare / Stand Date	
****	5		10	
MAPKS / J/GL		Αρρίον	CO FOR TRANSFO	R.
57 DESTINATION ADDRESS	DATE SHIPPED	00		
TRANSPORTATION CHARGEABLE TO	12 14 B:LADING, AWB, OR RECEIVE	FF ER'S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER	
Form 1348-1, JUL 91 0102-LF-013-7500	PREVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RE	LEASE/RECEIPT DOCUMENT
TO PIT M STOCK NUMBER INT FROM & FSC NIN BOILDOW 0436	ADD         Switz         QJANTAY         DECUMENT           Sbb         CNANTAY         PREDUISTIONER         D           Sbb         CNANTAY         PREDUISTIONER         D           Sbb         CNANTAY         PREDUISTIONER         D           Sbb         CNANTAY         V106-32         SHIP TO	7] 35] 39] 40] 41] 42] 43] 44] 45] 46] 66] 67] 48] 49 NUMBER NATE SERIAL HING SERIAL	50         51         52         53         55         55         55         56         61         62         63         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65         65<	70 11 12 13 14 13 14 17 18 16 19 
USS SaiPan (1 120632	PWC	Q-58	MARK FOR PROJECT	OLLARS TOTS
CARGO I CARGO I STITUTE DATA (ITEM ORIGINALLY REQUESTED)	UNIT UNIT WEIGHT UNIT U.F.C.	N M F C FREIGHT RAT	E DOCUMENT MAT OUANTITY DATE COND	<u> </u>
24020725)	U AICA D TEC			3
	LITEM NOMENCIATURE		1 V	
SELECTED BY AND DATE		Pust Coat	'ν	
SELECTED BY AND DATE		Pust Coart	IV IV IV E Z-G-J R-B-BY B	
SELECTED BY AND DATE	ITEM NOMENCLATURE X MONCO TYPE OF CONTAINERISI C C 3 NO STOCKESTAINERS TOTAL CUBE MANY 5 6 55	PUST COAT	IV IV E Z- 6- 7 B AND CATE B AND CATE B AND CATE B AND CATE COCATION	
SELECTED BY AND DATE	ITEM NOMENCLATURE X TYPE OF CONTAINERIS) TOTAL WEIGHT C NO S NO S S S S S S S S S S S S S	PUST Coart RECEIVED BY AND DAT RECEIVED BY AND DAT RECEIVED BY AND DAT PUST COART VE WAREHOUSED BY AND PUST COART PUST PUST PUST PUST PUST PUST PUST PUST	IN SPECIED BY AND CATE E Z- 6- J BANK MAREHENES LOCATION 10 APPROVOD FOR TRAN	STER
SELECTED BY AND DATE PACKED BY AND DATE PACKED BY AND DATE A A A A A A A A A A A A A	ITEM NOMENCLATURE X TYPE OF CONTAINERISI TOTAL WEIGHT C C S NO S C C C C DATE SHIPPED	PUST COAT	INSPECTED BY AND DATE INSPECTED BY AND DATE INSPECTED BY AND DATE B AND DATE B AND DATE INSPECTED BY AND DA	SFER De MES
SELECTED BY AND DATE PACKED BY AND DATE PACKED BY AND DATE A A A A A A A A A A A A A	ITEM NOMENCLATURE X TYPE OF CONTAINERIS) TOTAL WEIGHT C C 3 NO OVERSTAINERS TOTAL CUBE C C C DATE SHIPPED 12 14 BILADING AWE, OR RECEIVER S	PUST COAT	IN SPECIED BY AND CATE INSPECIED BY AND CATE INSPECTED BY AND CATE INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECTION INSPECT	SFER Dis MET

	.2512512512512512512512512512512512512512	3914C141 42143 4414514614714814915C5 <u>BER</u> <u>X</u> C11PPLEMENTARY SEHIAL <u>BIR</u> ADDRESS <u>SEHIAL</u> <u>SI</u>	192133194155155155155151919の12110111101101111111111111111111111	DOLLARS DIS
9150-00419062 Y CI	15-1PTC V20632		I I I I I I I I I I I I I I I I I I I	
155 SAIPAN LHAL	Phe			
V20132	E MIARINA	Q-06 .	c	Ξ
EHOUSE LOCATION TYPE OF UNIT UNIT I CARGO PACK	NEIGHT UNIT UFC CUBE	N M F C FREIGHT RATE	DOCUMENTINAT   DUANTITY DATE COND	
G F	J. K. L		N O P C P	
STITUTE DATA STEM ORIGINALLY RECUESTED	SSIFICATION NOMENCLATURE		: *V	
ITEM NOMEN	SLATURE APFT	GREASE		
SELECTED BY AND DATE	ONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DALE	INSPECTED BY AND DATE	
	en			
PACKED BY AND DATE NO OF CC	NTAINERS TOTAL CUBE	E E	ATE WABEHOUSE LOCATION	
•	6		10	
ARXS 1J IP7		Approved	FUR TRANSFOR	
	l lcc	by Dill	ECTION	
T DESTINATION ADDRESS	DATE SHIPPED	To	D. Cotoc3	
	12	FF		
RANSPORTATION CHARGEABLE TO	14 B/LADING, AWB, OR RECEIVER'S	SIGNATURE (AND DATE)	IS RECEIVER S DOCOMENT NUMBER	
Form 1348-1, JUL 91 PR 0102-LF-013-7500 PR	EVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM RE	LEASE/RECEIPT DOCUMENT
С 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 С	3 25 26 27 28 29 30 31 32 33 34 35 36 37 38 3 0UANTITY DOCUMENT NUL 2 0UANTITY 2 REQUISITIONER DATE 3 00000 1 11 20 6 34 54 54 54 54 54 54 54 54 54 54 54 54 54		ST 52 53 54 55 56 57 58 59 50 51 62 63 64 65 65 73 59 59 50 51 62 63 64 65 65 73 59 59 50 51 62 63 64 65 65 73 59 51 50 50 50 50 50 50 50 50 50 50 50 50 50	1 10 12 12 12 12 12 12 12 12 12 12 12 12 12
155 SAIPAN LHAZ	phe	650		
EHOUSE LOCATION ITYPE OF UNIT I UNIT	B VOKVA	C C FREIGHT RATE		E
CARGO PACK	CUBE		DATE COND	
G H I STITUTE DATA IITEM ORIGINALLY REQUESTED) FREIGHT CL	J K L	м	N O P C P	<u> </u>
	V PTS	x	V	
× AC	Hesing CHA	(string) Fine	Resistant	
SELECTED BY AND DATE	CONTAINER(S) TOTAL WEIGHT	R 7-5	- 25	
2	_ /\		B WAREHOUSE LOCATION	
PACKED BY AND DATE NO OF C	1	E R R		
<b>4</b> 5	6			e /2
1/19		Hproved	TOK INKINS T	
BB	CC DATE SHIPPED	ByD	LRECT-LONE Wor	P. Coli
TRANSPORTATION CHARGEABLE TO	12 14 BILADING, AWB, OR RECEIVER'	FF S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER	<u> </u>
Form 1348-1, JUL 91 P1 0102-LF-013-7500	REVIOUS EDITION MAY BE USED		DOD SINGLE LINE ITEM R	ELEASE/RECEIPT DOCUMEN

FROM 5 FSD		CLERCERCULARY _ EUXD CLEVE PE RIAL [E] > ADDRESS \$   EUXD CLEVE   E	
19150 0023190	13 CAV 1 14 20632 5181 1	of q = 1	
SS SNIPANE,	HA. PUL NORVA		COLLEAS COLLEAS
V20632	a 9-50	D	E
SE LOCATION TYPE OF UNIT CARGO PACK	UNIT WEIGHT UNIT U.F.C. N.M.F. CUBE	C FREIGHT BATE DOCUMEN DATE	TMAT OUANTITY COND
		W N O	P 0 7 IS
	ALEN REF	i I V	
ITEN	NOMENCLATURE	matrice	
CTED BY AND DATE	HE OF CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DATE	INSPECTED BY AND DATE
2		s cloren to	θ
ED BY AND DATE	D. OF CONTAINERS TOTAL CUBE	E WAREHOUSED BY ARUDATE	CUAREHOUSE LOCATION
5	6	9	10
11/50		APPROVED	FOR TRANSFER
BB	CC DATE SHIPPED	By	
		ry N	ingano lan codo
DRTATION CHARGEABLE TO	12 FF 14 B/LADING, AWB, OR RECEIVER'S SIGNATUR	E (AND DATE) 15 RECEIVER'S DO	GG DCUMENT NUMBER
348-1, JUL 91	PREVIOUS EDITION MAY BE USED		
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 6	7 68 69 70 71 72 73 74 74 75 77 78 75 82
	COCUMENT NUMBER	FUND DISTRI- PROJ EUTION ECT C DEL O G DATE C	RI DOLLARS CTS
1-041-1609 (N.00001)	120632 51817017		
QAL/ILLA-7) SHIP TO	Pial C. I	ARK FOR PROJECT	DOLLARS CTS
	NORVA		
TYPE OF UNIT UNIT WEIGHT UNIT CARGO PACK CUB	UFC NMFC FREIGHT RATE	D DOCUMENT MAT QUANTITY DATE COND	
	K 1 M	N C P C P	S
TEDUESTEDI FREIGHT CLASSIFICATION NOMI		1137 25 77	
ITEM NOMENCLATURE	HONCOULE SON	~	
TYPE OF CONTAINER(S)	OTAL WEIGHT RECEIVED BY AND DAT	E INSPECTED BY AND	) DATE
CN	R E C U	-6-D	
2 3 NO OF CONTAINERS T	OTAL CUBE	DAJE	TION
1	l ^s .	10	
]5[6	APPROV	ED FOR TRANSF	FER
BBCC	DD Py 0	1. action the	A
DATE SHIF	PED	y Unerand	/
12		U U UGS	
O I 14 B/LADI	NU, ANYO, UN REUEIVER & SIGNATURE (ANU UATE)		2
PREVIOUS EDITIO	IN MAY BE USED	DOD SINGLE LINE IT	EM HELEASE/HELEIMA DUCUMEN - MARCA

on an en en einer strikeliser volgen einer strikeliser in einer strikeliser strikeliser in einer striker in eine	24/05/05/121/25/25/05/31/22/33/34/35/36 C. (AN T/T	3" 38' 79 40 41 42 43 44 45 46 4" 48 4	9 50 51 52 52 53 54 55 56 57 58 52 60 61 62 63 64 6	
685000 1504921 CI	N.00001 1206325	DATE SERA BAR ADDRESS		
USS SAIPAN (LHA-2	PulC	NORVA	MARK FOR PROJECT	7074, FR.05 2011485 - 2011
V20632		.58		ε
CADUSE LOCATION		N M F C FREIGHT R	ATE DOCUMENT MAT OUANTITY DATE COND	
UTE CATA IITEM ORIGINALLY RECUESTED,	ASSIFICATION NOMENCLATURE			<u>10</u> 3
ITEMA SMET	SCALE PREVENTI	ON COMPOUND	1 : !	
ELECTED BY AND DATE TYPE OF	CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND D	DATE INSPECTED B	AND DATE
2 NACKED BY AND DATE NO OF C	3 ONTAINERS TOTAL CUBE	U 7 E S 7 V E WAREHOUSED BY	RE DAREHOUSE	OCATION
	1	R S		
×5 1 × 5 FC		APPRO	VED FOR TEAN	ISFER
ESTINATION ADDRESS	CC DATE SHIPPED		d-red Tre- A-C	
Î		Zł,	By the spond "	n Cy
AANSPORTATION CHARGEABLE TO	12 14 B/LADING, AWB, OR RECEIVE	FF R'S SIGNATURE (AND DATE)	IS RECEIVER'S DOCUMENT NUMBER	
т 1348-1, JUL 91 PR 2-LF-013-7500 PR	EVIOUS EDITION MAY BE USED		DOD SINGLE LIN	EITEM RELEASE/RECEIPT DOCUMENT
				-
	25 26 27 28 29 30 31 32 33 34 35 36 37 3	18 39 40 41 42 43 44 45 46 47 48 49 50	0 51 52 53 54 55 56 57 58 59 60 61 62 63 64 55 66	67 68 69 70 71 72 -3 74 -5 75 18 70 8
RI M STOCK NUMBER			JFUND DISTRI PROJ BUTION ECT EE DEL DATE Q	RI UITIT PRICE
L SATPAN LHAZ	PMC		AARK FOR PROJECT	TOTAL PRICE COLLAPS CTS
120632	B MORUA-			E
CARGO PACK	CUBE			c
G H I TE DATA IITEM ORIGINALLY REOUESTED) FREIGHT CLASS	J K I			3
	ATURE ON 2004	FGJ DOG		
CTED BY AND DATE	INTAINERIS; TOTAL WEIGHT	RECEIVED BY AND DA	TE INSPECTED BY A	ND ĐẠTE
2	<i>Ŋ</i> ₃		B B B B B B B B B B B B B B B B B B B	CATION
YED BY AND DATE NO OF CON				
	6	Androve d	FCK TRIANK	FeR
	1	1º Ra		
вв		DD	prenan	
ESTINATION ADDRESS	CC DATE SHIPPED		Warner Ko	A.C.
BB FOTINATION ADDRESS INSPORTATION CHARGEABLE TO	CC DATE SHIPPED 12 14 BILADING, AWB, OR RECEIVER	FF S SIGNATURE (AND DATE)	GG 15 RECEIVER'S DOCUMENT NUMBER	H. Col

······································	2 22 24 25 26 27 28 29 30 31 32 33 34 35 36 3	17 38 39 46 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 55 57 58 59 55 67 62 63 64 55 66 67 68 67	
JOC P A STUCKALAUSER	DOLUMENT DOCUMENT	ADVERS		
ISS SAIPAN LHA	2 PWC	MARK	FUR PRUJEC:	DCLLARS .C'S
1/20/32	NORVA	Q-50	D	E
AFEHOUSE LOCATION TYPE OF UNIT CARGO PACK	UNIT WEIGHT UNIT U F C CUBE	N M F C FREIGHT RATE	DOCUMENT MAT OUANTITY DATE COND	
G H	J K	с м	N O P O P	
JESTITUTE DATA (ITEM ORIGINALLY REQUESTED) FREIGH	CLASSIFICATION NOMENCLATURE			4
ITEM NC	MENCLATURE	$\left( \begin{array}{c} z \\ z \end{array} \right)$	<u>ل</u> رين ا	
SELECTED BY AND DATE	OF CONTAINER(S) TOTAL WEIGHT	RECEIVED BY AND DATE	7-95	
	CN .			
PACKED BY AND DATE NO C	CONTAINERS TOTAL CUBE	U E WAREHOUSED BY THO DATE	WAREHOUSE LOCATION	
<b></b>	6	S S S	10	
XAGKE X5CB		APPROVED.	FOR TRANSFO	·K
1 1 8B		DD	Direction	
ST DESTINATION ADDRESS			Norp.C.	1 1203
TRANSPORTATION CHARGEABLE TO	12 14 B/LADING, AWB, OR RECEIVE	FF FA'S SIGNATURE (AND DATE)	GG	1/63
1         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         22         22           T         FR         W         STOCK NUMBER         ADD         3         FSC         NIIIN         ADD           S         S0         3D         00         3         5         4/3         4/3         ADD	3122 25 25 27 28 29 30 31 32 33 34 35 35 37 5 32 20 20 20 20 20 20 20 20 20 20 20 20 20	33 33 40 41 42 43 44 45 46 47 48 49 50 51 52 <u>MBER</u> EE SERIAL LAR SERIAL SERIAL SERIAL SERIAL SERIAL SERIAL	53 54 55 56 57 58 59 50 61 62 63 64 65 66 67 66 69 7 ND DISTRI- PROJ BUTION ECT <u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	171 72 73 72 75 75 77 77 78 70 25 <u>INIT PRICE</u> DOLLARS CTS
	SHIP TO	MARK FO	DR PROJECT	TOTAL PRICE DOLLARS CTO
VSS SAIDAN (LHQ-L	Pul N	ORVA		
		N M F C FREIGHT RATE		ΞΕ
				c.
IG H II TITUTE DATA ITEM ORIGINALLY REQUESTED) FREIGHT (	J K LASSIFICATION NOMENCLATURE	LM		3
	ICN PEG	D - 1	lv	
SELECTED BY AND DATE	( CLEAR) (URRO	TRECEIVED BY AND DATE	MPOUND	
	CN			
1 2 PACKED BY AND DATE	3 CONTAINERS TOTAL CUBE	WAREHOUSED BY AND DATE	B WAREHOUSE LOCATION	
	1			
is 15	6	APPPOUR	D FOR TRANSFR	=/>
	i I cc	R	ding-lee m	
DESTINATION ADDRESS	DATE SHIPPED	$\gamma$	CA-INCORFOR	ancel
	12	FF (	GS	~
ANSPORTATION CHARGEABLE TO	14 B/LADING, AWB, OR RECEIVER	S SIGNATURE (AND DATE)	IS RECEIVEN S DUCUNENT HUMBEN	
12121 1111 01	BEVIOUS EDITION MAY BE USED		DOD OMOLE LINE ITEM PELE	ASE PECEIPT DOCUMENT

# **APPENDIX B**

Î

I B

COMNAVBASE NORVA (5090/5)

# HAZARDOUS MATERIALS

# HAZARDOUS WASTE

# MINIMIZATION, REUTILIZATION AND

# DISPOSAL GUIDE

COMNAVBASE NORFOLK ENVIRONMENTAL PROGRAMS HAZARDOUS WASTE DIVISION

COMNAVBASE NORVA (5090/5) REV. (2-95)

# TABLE OF CONTENTS

Ê

-

A MATERIAL SUBSTITUTION AND INVENTORY CONTROL	MINIMIZATION	1
REUTILIZATION       2         A. HAZARDOUS MATERIAL (HM) RETURN TO SUPPLY       2         B. EXTEND SHELF LIFE       2         C. CROSSDECKING/FISC 'SMART BUY' PROGRAM       3         D. DEFENSE DEPOT, NORFOLK VA. (DDNV)       4         E. NAVAL AIR STATION (NAS) NORFOLK RECYCLE/REUSE PAINT STORE       4         F. DEFENSE REUTILIZATION AND MARKETING OFFICE (DRMO), NORFOLK       5         DISPOSAL       6         A. SHORE COMMANDS:       6         B. SHIPS       6         C. PACKAGING/ PAPERWORK REQUIREMENTS:       7         SPECIFIC TYPES OF WASTE       8         MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS       10         C. OIL FILTERS       11         P. PO-680.       12         F. ASBESTOS       13         H. AEROSOL CANS       14         I. NDUSTRIAL WASTE       15         J. X.2 OR X.3 CHEMICALS       15         M. APLIANCES       16         B. USEID CANS       16         B. USEIX OR RECOVERY UNITS       17         M. APROSOL CANS       14         I. NDUSTRIAL WASTE       15         J. X.2 OR X.3 CHEMICALS       15         J. G. SOCTUNDERS       16         J. SUVERVIL VER REC	<ul><li>A. MATERIAL SUBSTITUTION AND INVENTORY CONTROL.</li><li>B. HAZARDOUS INVENTORY CONTROL SYSTEM (HICS).</li></ul>	1 2
A. HAZARDOUS MATERIAL (HM) RETURN TO SUPPLY	REUTILIZATION	2
DISPOSAL6A. SHORE COMMANDS:6B. SHIPS6C. PACKAGING/ PAPERWORK REQUIREMENTS:7SPECIFIC TYPES OF WASTE8A. PAINTS8B. USED OL8MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS10C. OIL FILTERS11P. PD-680.11E. RAGS12F. ASBESTOS13G. BATTERIES13H. AEROSOL CANS14I. NDUSTRIAL WASTE15J. X-2 OR X-3 CHEMICALS15K. GAS CYLINDERS.16L. BUILDING MATERIALS17M. SILVER/SILVER RECOVERY UNITS17N. SILVER/SILVER RECOVERY UNITS17O. METHYL ETHYL KEYTONE PEROXIDE18P. NON-REGULATED WASTE19R. UNKNOWNS19CONTAINER INFORMATION20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. RECYCLING21B. METAL ONLY DUMPSTER21A. RECYCLING21B. METAL ONLY DUMPSTER21C. COMMAND ENVIRONMENTAL POINTS OF CONTACT23	<ul> <li>A. HAZARDOUS MATERIAL (HM) RETURN TO SUPPLY</li> <li>B. EXTEND SHELF LIFE</li></ul>	2 2 3 4 4 5
A. SHORE COMMANDS:6B. SHIPS6C. PACKAGING/ PAPERWORK REQUIREMENTS:7SPECIFIC TYPES OF WASTE8A. PAINTS8B. USED OIL8MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS10C. OIL FILTERS11D. PD-680.11E. RAGS.12F. ASBESTOS13G. BATTERIES13H. AEROSOL CANS14I. INDUSTRIAL WASTE15J. Z. OR X-3 CHEMICALS15K. GAS CYLINDERS.16L. BUILDING MATERIALS17M. SILVER/SILVER RECOVERY UNITS17N. SILVER/SILVER RECOVERY UNITS17N. SILVER/SILVER RECOVERY UNITS18P. NON-REGULATED WASTE18Q. SPEEDY-DRY OR ABSORBENT MATERIAL19R. UNKNOWNS19CONTAINER INFORMATION20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER NFORMATION21A. RECYCLING21B. METAL ONLY DUMPSTER20ADDITIONAL INFORMATION21A. RECYCLING21B. METAL ONLY DUMPSTER21C. COMMAND ENVIRONMENTAL POINTS OF CONTACT23	DISPOSAL	6
SPECIFIC TYPES OF WASTE8A. PAINTS8B. USED OIL8MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS10C. OIL FILTERS11D. PD-68011E. RAGS12F. ASBESTOS13G. BATTERIES13H. AEROSOL CANS14I. NDUSTRIAL WASTE15J. X-2 OR X-3 CHEMICALS16E. BUILDING MATERIALS17M. APPLIANCES17N. SIL VER'SIL VER RECOVERY UNITS17O. METHYL ETHYL KEYTONE PEROXIDE18P. NON-REGULATED WASTE18Q. SPEEDY-DRY OR ABSORBENT MATERIAL19R. UNKNOWNS19CONTAINER INFORMATION20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER PROCUREMENT20A. CONTAINER NIFORMATION21A. RECYCLING21B. METAL ONLY DUMPSTER21C. COMMAND ENVIRONMENTAL POINTS OF CONTACT23	A. SHORE COMMANDS: B. SHIPS C. PACKAGING/ PAPERWORK REQUIREMENTS:	6 6 7
A. PAINTS	SPECIFIC TYPES OF WASTE	8
CONTAINER INFORMATION	A. PAINTS B. USED OIL. MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS C. OIL FILTERS D. PD-680 E. RAGS F. ASBESTOS G. BATTERIES H. AEROSOL CANS I. INDUSTRIAL WASTE J. X-2 OR X-3 CHEMICALS. K. GAS CYLINDERS L. BUILDING MATERIALS M. APPLIANCES N. SIL VER/SIL VER RECOVERY UNITS O. METHYL ETHYL KEYTONE PEROXIDE P. NON-REGULATED WASTE Q. SPEEDY-DRY OR ABSORBENT MATERIAL R. UNKNOWNS	8 8 10 11 12 13 14 15 16 17 17 18 18 18 19 19
A. CONTAINER PROCUREMENT	CONTAINER INFORMATION	20
A. RECYCLING	A. CONTAINER PROCUREMENT B. DISPOSAL OF EMPTY METAL CONTAINERS ADDITIONAL INFORMATION	20 20 <b> 2</b> 1
	A. RECYCLING B. METAL ONLY DUMPSTER C. COMMAND ENVIRONMENTAL POINTS OF CONTACT	21 21 23

APPENDIX 1:	EM FLOW CHART	24
APPENDIX 2:	DDNV PROCEDURES FOR MATERIAL EXCHANGES	25
APPENDIX 3:	DD FORM 1348-1 INSTRUCTIONS	26
APPENDIX 4:	OSHA HAZARDOUS CHEMICAL WARNING LABEL	27
APPENDIX 5:	RATE SCHEDULE, PWC NORFOLK	28

Arrest and a second

•

# HAZARDOUS MATERIALS'/ HAZARDOUS WASTE (HM/HW) MINIMIZATION REUTILIZATION AND DISPOSAL GUIDE

The information compiled here is provided to assist you in properly managing hazardous materials/hazardous waste (HM/HW), oil, and asbestos at Naval Base, Norfolk. The goal of proper management of these materials is to order only what you need and use what you order. For excess material, if it was purchased within thirty days, you may return the material for exchange or refund. The next priority is to find another user; the last resort is to turn in the material to Public Works Center (PWC), Norfolk, for disposal. For additional information, please call Commander, Naval Base (COMNAVBASE), Norfolk Environmental Programs Department, Leslee Oberg-Carpenter or Mr. Duane Gielda at 444-3009.

All Naval Air Station (NAS) Norfolk commands must contact the Facility Maintenance Department (FMD) before disposing of HM/HW. All DD Forms 1348-1 must be signed by authorized persons at FMD before disposal can be completed. FMD can be reached at 444-0600. (See APPENDIX 6 for more detailed information.)

## MINIMIZATION

The first step towards reducing HW generation is through reduction in HM procurement. Minimizing the amount of HM purchased not only reduces the amount of HW generated but also saves man hours required to reutilize or manage the HM as HW. To minimize HW generation do the following:

# A. MATERIAL SUBSTITUTION AND INVENTORY CONTROL

1. Review work practices to determine if non-HM or a material with less hazardous constituents may be substituted. Technical manual guidance must, however, be the prevailing factor in any decision to use substitute materials.

2. Buy only the amount of HM needed for a particular job. Fleet and Industrial Supply Center (FISC) Norfolk Paint Mart, located in Building X-218, sells any amount of paint and paint related materials in small units of issue, such as 1 quart or 1 pint. Required documents are a completed DD Form 1348-1A or NAVSUP Form 1250 and a FISC Serve Mart card. To ease shopping at Serve Mart and Paint Mart, their program and entire inventory can be copied onto two computer disks. This service is provided for free,

15 FEB 95

but the lemmand must supply the disks. Call FISC Norfolk Serve Mart (Blag. W-135) at 444-2263 for more information.

3. Review inventory, rotate stock and use materials with shortest expiration date first.

### B. HAZARDOUS INVENTORY CONTROL SYSTEM (HICS)

Another way to manage HM and greatly minimize HW generation is to acquire the Hazardous Inventory Control System (HICS). HICS is a software program developed at Naval Air Weapons Station, Pt. Mugu which minimizes the amount of excess HM through centralizing the procurement, storage, issue, reuse and disposal of HM. Properly managed, a 70 % reduction of HM/HW disposal can be realized. To learn more about HICS, call FISC Customer Service at 444-8273.

# REUTILIZATION

Reutilization is the next priority in the disposal of HM. See APPENDIX 1 for an abbreviated flow chart of how to reutilize and dispose of HM. Specific reutilization methods are discussed below.

### A. HAZARDOUS MATERIAL (HM) RETURN TO SUPPLY

1. If you purchase HM and find that you cannot use all that you have purchased, return to NAS Supply or FISC/Defense Depot Norfolk VA (DDNV) within 30 days for an exchange or refund. (See APPENDIX 2 for specific details.) You must have an original copy of the DD Form 1348-1 showing that the material was shipped from NAS Supply or FISC/DDNV. The Julian date on the 1348-1 must not be more than thirty days old. Bring both the material and an original copy of the DD Form 1348-1 to the Fleet Liaison Section, in the Customer Service Divisions, Fleet Support Branch located on the first floor in Bldg. W-143 or to the NAS Supply Department, Building V-53. For further directions, please call FISC/DDNV, 444-4047/1926 or NAS Supply Department, 444-3276.

### B. EXTEND SHELF LIFE

If the material you have is expired, don't panic! Many times the shelf life of a material can be extended. Always extend the shelf life before continuing with other disposal alternatives.

All shelf-life material is either Type I or Type II. Approximately ten percent is Type I and cannot be extended. Ninety percent, on the other hand, is Type II with an extendit e shelf-

15 FEE 95

life. In-house inspections and tests are good enough for most of your material. It is, however, often difficult for personnel to find descriptions of the specific inspections or tests required to extend the shelf-life of particular items. There is no single source of test information. GSA and all military services except the Navy have developed separate storage standards.

Since the Navy has not yet developed storage standards, shelflife extension inspections and tests on Navy-managed material must rely on locally developed instructions and old-fashioned common sense. For most Type II material, shelf-life extension tests are not complicated, do not require a laboratory, and can be done on the spot by anyone with a minimum of training. They are usually nothing more than visual checks for damage or deterioration.

For example, shelf-life extension of paint can be accomplished according to the Federal Standard 793, "Depot Storage Standards". "End users are authorized and encouraged to examine paint using FED-STD-793 quidelines or by using practical, end-use related tests to determine if the materials still meets their intended use. End users may extend the shelf-life as long as the paint performs satisfactorily for their needs." Recent discussions with Navy and Commercial authorities on paints and coatings support this determination. Even though the expiration date may have passed, your examination of the material is the final determinant of the usefulness of GSA paint you have purchased. Therefore, before disposing of paint because it's shelf-life has expired, you are strongly encouraged to review FED-STD-793, paragraph 4. For further assistance in determining if the shelf-life can be extended, call Mr. Jim Merritt, at 444-1096. or contact your Supply Officer.

Defense General Supply Center (DGSC) in Richmond, VA has a Quality Status List (QSL) which extends certain Type II Federal Stock Class (FSC) material. Included on the QSL are FSCs: 6635, 6750, 6810, 6840, 6850, 9110, 9150, and 9160. To obtain a copy of the microfiche that show the shelf-life extensions call Jim Lewis at DSN 695-4140 or commercial 1-279-4140.

#### C. CROSSDECKING/FISC "SMART BUY" PROGRAM

If you cannot use the material before its shelf life expires, crossdecking it, i.e., finding someone else (another activity, squadron, or command) who uses the same material and giving it to them, is the next best alternative. Before crossdecking, extend the shelf life (see above). Crossdecking saves you from having to

manage the material as HW and saves us, as taxpayers, disposal costs.

#### Crossdeck by:

1. Calling other activities to let them know what your inventory is and arranging for the transfer of the material.

2. Submitting a complete inventory of the material you wantto crossdeck to FISC Norfolk's Hazardous Materials Management Division. They will advertise the material, through the "Flash" bulletin's "Smart Buy" program, which is distributed regularly. The Flash is also a good source to identify material that you want to procure, since it is distributed free of charge. For more information or to get on the Flash distribution list, call Craig Hughes or Garry Humphries at 444-7566.

### D. DEFENSE DEPOT, NORFOLK VA. (DDNV)

If the procurement date of the material is greater than 30 days, the shelf-life of the material cannot be extended, or the material cannot be crossdecked, it may be possible to return the material to DDNV. The following requirements apply:

1. The material must be in Class A condition. It must be new material with NO scratches, dents, or rust on the container. Material must have original labels and be in the same unit of issue as originally issued. (For example: if the material was issued as 12 items to a box, you must have 12 items to return to DDNV).

2. The material must have at least 6 months of shelf life remaining. Extend shelf life if at all possible, before returning to DDNV. (See Shelf-Life extension section above).

3. The material must be accompanied by a completed DD Form 1348-1. Your Supply Office has copies of this form.

4. DDNV POC is Mr. William Alexander at 444-1167.

5. If DDNV issues incorrect or defective material, see APPENDIX 2 for specific instructions.

### E. NAVAL AIR STATION (NAS) NORFOLK RECYCLE/REUSE PAINT STORE

NAS Norfolk Recycle/Reuse Paint Store accepts paint, hydraulic fluids, and lube oils that have expired, but not been used. The

4
paint is re-issued for purposes other than those originally intended (example: expired aircraft paint may be used to paint office furniture). Before delivering HM to Building SP-83, call Mr. Larry Odietus to ensure acceptance at 444-4944.

1. Only commands on NAS Norfolk may turn in materials at this reuse store, however, any command may pick up materials for reusefree of charge. No paperwork is required for pick up of materials. Requirements for turn in are:

a. All containers must be non-leaking and in good condition, e.g. no rust or dents, and must have the original label intact.

b. The generator must deliver to Building SP-83. Call for an appointment at 444-4944.

c. A completed DD Form 1348-1 is required for turn-in.

F. DEFENSE REUTILIZATION AND MARKETING OFFICE (DRMO), NORFOLK

DRMO Norfolk can accept any material for reuse that DDNV or FISC Norfolk cannot accept. Remember: Extending the shelf-life, crossdecking and returning to DDNV or FISC Norfolk are first priorities for reuse of good materials. Call DRMO Norfolk at 445-4450 to ensure acceptance and coordinate turn-in of material. Turn in requirements are as follows:

1. Items may be expired, but containers should be in good condition--not too rusted or dented.

2. If kits are being turned in, all parts of the kit must be included.

- 3. Paperwork required:
- a. Completed DD Form 1348-1, (SEE APPENDIX 3).
- b. MSDS
- c. OSHA Hazardous Chemical Warning Label (APPENDIX 4) Only adhesive type labels are acceptable.

Examples of materials that DRMO Norfolk will accept:

- a. all flammable materials (solvents, paints, etc.)
- b. all photographic chemicals
- c. corrosives

- d. used synthetic oils and used synthetic hydraulic fluids
- e. mercuric nitrate
- f. cleaning compounds
- g. greases

If your HM is rejected by DRMO Norfolk, please request a "917 rejection form." This form provides specific information explaining why your HM was rejected. After making the necessary corrections, return the HM to DRMO Norfolk for reutilization.

## DISPOSAL

If a hazardous material is used or if it becomes a HW after all other routes of utilization or disposal have been attempted, the last management alternative is PWC. PWC Norfolk is our HW transport and disposal agent. They pick up HW at Hazardous Waste Accumulation Areas (HWAA) and at specific pier locations on a reimbursable basis (see APPENDIX 5). The POC for HW pick ups is Mr. Bill Whitmire at 444-7528. HW pick ups can be scheduled as follows:

#### A. SHORE COMMANDS:

1. With an established 90 day HWAA: call PWC Norfolk for a pick up at least 1 month prior to the 90 day accumulation start date expiration, or as soon as the drum is full. The ships have priority over shore commands, sometimes causing delays in shore command HW pick ups. Call PWC Norfolk at 444-7528 to schedule a HW pick up.

2. Without an established 90 day HWAA: Call PWC Norfolk at 444-7528 to schedule a pick-up. (If you need to establish a 90 day HWAA, contact Leslee Oberg-Carpenter, COMNAVBASE Norfolk Environmental Programs Department at 444-3009. COMNAVBASE Norfolk Environmental is the only Department on Naval Base, Norfolk that can establish 90 day HWAAs).

#### **B. SHIPS**

1. Ships in local private shipyards: Allow at least 1 week for scheduled pick up. Call PWC Norfolk at 444-7528.

15 FEB 95

#### 2. Ships at Naval Station, Norfolk piers:

a. Less than 4 pallets of HM/HW: There are several PWC Norfolk HW pick up points on the piers for less than four pallets of HM/HW. HW can be dropped off only at these specific piers listed below and the corresponding times. A person from the ship must accompany the HW from the time it leaves the ship to the time it is picked up by PWC Norfolk for disposal.

Pier pick-up schedule is:

Monday - Friday

0800-0930	Piers 5 and 11
0945-1100	Pier 24
1300-1400	Between Piers 21 and 22 (Across from the piers next to the fence).

b. More than 4 pallets of HM/HW: An offload conference is required for disposing of four or more pallets of HM/HW. Call COMNAVBASE Norfolk, Duane Gielda at 444-3009 to schedule a conference.

C. PACKAGING/ PAPERWORK REQUIREMENTS:

1. Tri-Wall Boxes are not authorized for turn in of HW. They increase disposal costs because of increased sorting time and risk incompatibility reactions.

2. For various container sizes of waste paint, segregate according to container size and prepare one DD Form 1348-1 for each different size group of containers.

3. Paperwork required for turn in of HM/HW to PWC Norfolk: Completed DD-Form 1348-1 (see APPENDIX 3). Indicate on the form in Block AA the process generating waste, e.g., painting, degreasing, vapor cleaning, boiler cleaning, etc. Please have the DD-Form 1348-1 completed prior to turn-in to ensure prompt service.

4. All NAS Norfolk HWAA Custodians must contact FMD at 4-0600 before calling PWC for a pick-up. (See APPENDIX 6)

7

# SPECIFIC TYPES OF WASTE

#### A. PAINTS

1. Waste paint is the largest single HW disposal item at Naval Base, Norfolk. See APPENDIX 6 for Paint Disposal Costs. Therefore, reduction of waste paint generation should be a high priority for all commands. All precautions should be taken not to order more paint than a particular job requires. If you find that you have extra unused paint, follow the procedures under "REUTILIZATION" in this guide.

2. If the paint is a HW, (is no longer usable due to product damage), it must be disposed. Call PWC Norfolk for a pick up at 444-7528. A completed DD Form 1348-1 is required for turn in. (See APPENDIX 3).

#### B. USED OIL

1. <u>Petroleum Oil:</u> Petroleum based oils and fluids can be recycled. If petroleum and synthetic products are mixed together they cannot be recycled, but if a mixture of synthetic and petroleum products occurs, they are managed as a non-regulated waste, NOT as HW.

a. If the petroleum oil is contaminated with water and dirt only, it is not regulated as a HW. Label "USED PETROLEUM OIL". Dispose of as follows:

SHIPS: To schedule a Sewage and Waste Oil Barge (SWOB) or Oil Disposal Raft (ODR), contact Port Operations at 444-3745. If the used oil is in containers and the total volume is greater than 5 gallons, contact Port Operations at 444-3745.

NAVSTA NORFOLK SHORE COMMANDS: Contact PWC Oil Recovery at 445-1546 or 444-7528.

NAS NORFOLK COMMANDS: For used petroleum oils ONLY, (not contaminated with a HW), contact NAS Norfolk Fuel Farms at 444-2625. This service is free for NAS Norfolk commands.

b. If the petroleum oil is contaminated with a HW such as MEK or MOGAS, it is regulated as a HW and must be labeled with all contamination. These oils must be disposed of through PWC as HW, call PWC at 444-7528.

2. <u>Synthetic based oils</u>: Synthetic based oils cannot be recycled. Keep petroleum and synthetic based products separate!

a. If synthetic oil is contaminated with water and dirt only, it is not regulated as a HW. Label "USED SYNTHETIC OIL". Used synthetic oils can be taken to DRMO Norfolk, building SDA-204. Call DRMO Norfolk for turn in appointment at 445-4450. The command must approximate the percentage of contaminants in the synthetic oil and deliver it to DRMO Norfolk with completed DD Form 1348-1 (SEE APPENDIX 3), OSHA Warning Label and MSDS.

b. If the synthetic oil is contaminated with a HW such as MEK or MOGAS, it is regulated as a HW and must be labeled with all contamination.

3. A quick reference sheet is provided on the following page.

15 FEB 95

200 C

# MATRIX FOR PETROLEUM AND SYNTHETIC BASED PRODUCTS

PRODUCT (S)	SYN	PET	PD-680	FREON	JP-4	JP-5	MOGAS	MEK
PETROLEUM	2	1	1	3	3	1	3	3
SYNTHETIC	2	2	2	3	3	2	3	3

1. RECYCLABLE, NOT HW: CALL NAS FUEL FARMS OR PWC OIL RECOVERY

SHORE COMMANDS:

NAS FUEL FARMS: 444-2625 PWC OIL RECOVERY: 445-1546/444-7528

SHIPS: CALL PORT OPS AT 444-3745

2. NOT RECYCLABLE, NOT HW: TURN IN TO DRMO FOR REUSE, TRANSFER, DONATION OR SALES.

DRMO APPOINTMENT: 445-4450

REQUIRED: MSDS, OSHA WARNING LABEL, DD FORM 1348-1

APPROXIMATE PERCENTAGES OF CONTAMINATES IN THE OIL.

3. HW: ONLY PWC CAN PICK UP AND TRANSPORT FOR DISPOSAL.

PWC HW PICK UP: 444-7528

NEED: DD FORM 1348-1

NOTE: ANY MIXTURE THAT INCLUDE PRODUCTS WHERE A NUMBER 3 RESULTS IS CONSIDERED A HW.

15 FEB 95

C. OIL FILTERS

1. Some automotive or truck oil filters contain high levels of lead and after use must be managed as hazardous waste (HW). There is no set procedure for identifying which oil filters contain lead.

2. All filters are exempted from hazardous waste management regulations if properly drained, crushed and <u>recycled</u>. The following disposal procedures will be used at Naval Base, Norfolk. The activity will:

a. Puncture the filter anti-drain back valve or the filter dome end and hot drain, or dismantle and hot-drain the filter for a minimum of 24 hours. Ensure that the used oil from the filter is drained into a suitable container and disposed of in accordance with this COMNAVBASE NORVA (5090/5).

b. Place drained filters in a 55 gallon steel drum. Make sure the drum is properly sealed, using the locking ring and bolt.

c. Deliver the filters to the Q-50 Metals Yard compound for recycling. Pick ups for large quantities can be arranged by contacting the Metals Recovery program manager.

d. No paperwork is required for turn-in.

4. The point of contact at the Q-50 Metals Recovery Facility is Mr. Mike Berry at 445-8700. The point of contact for this office is Leslee Oberg-Carpenter at 444-3009.

D. PD-680

1. PD-680 is a petroleum based solvent which can be recycled as long as it is not contaminated with a HW. PD-680 mixed with other petroleum based fluids, water or dirt should be picked up for recycling. When calling PWC Norfolk Oil Recovery, indicate that the mixture of hydraulic fluid and PD-680 is petroleum based for recycling. Label the container "used petroleum fluids with PD-680."

a. NAVSTA NORFOLK SHORE COMMANDS: Contact PWC Oil Recovery at 444-7528.

15 FEB 95

b. NAS NORFOLK COMMANDS: Contact NAS Norfolk Fuel Farms at 444-2625.

2. PD-680 mixed with synthetic based fluids cannot be recycled. Containers should be labeled as "used synthetic hydraulic fluid with PD-680". Deliver to DRMO Norfolk (See Reutilization section for turn-in requirements). NAS Norfolk commands see "Used Oil" section.

## E. RAGS

1. <u>Oily Rags</u>: Rags must be placed in double plastic bags and labeled as to what they were used for, e.g., hydraulic fluid, PD 680, etc. List all contaminants on the bag. (If rags contain hazardous products like, MEK, thinner, or freon, see Hazardous Waste Rags Section below.)

a. NAVSTA Ships: PWC collects oily rags Tuesday and Thursday ONLY at the following times and pier locations:

1230	Pier 11
1300	Pier 5
1330	Pier 24
1400	Between Piers 21 and 22

This scheduled pier pick up is for oily rags ONLY. All other wastes pick ups are according to the pier pick up schedule in the Disposal Section of this guide.

b. NAVSTA Shore commands: Call PWC for an oily rag pick-up at 444-7528.

c. NAS Norfolk commands. An oily rags contract is in effect for NAS commands. National Linen Service will pick up and deliver to the same location, any amount of rags on a weekly schedule. A significant cost savings can be realized by using this service. (Call FMD at 444-2048/0600 for more information.)

2. <u>Hazardous Waste (HW) Rags</u>: Rags that have been contaminated with HM, HW, such as MEK, thinner or freon must be managed as HW. They must be in a sealed container (i.e. a 55 gallon drum) for turn-in. Call PWC Norfolk for a HW pick up at 444-7528.

15 TEB 95

F. ASBESTOS

1. Commands located on the main Naval Base Norfolk complex can deliver asbestos to the Q-50-F area. A HW transporter's permit is required to transport asbestos along public highways; therefore, commands located outside the Naval base complex must call PWC Norfolk to transport and dispose of asbestos. There is a charge for transportation, in addition to the disposal charge. Hours of operation at the Q-50 area are 0700-1530, M-F. A completed DD Form 1348-1 is required for asbestos disposal.

a. <u>Ships</u>: For asbestos pick up contact PWC Norfolk, 445-2660. A job order number has been established for ships. A completed DD Form 1348-1 is required.

b. <u>Shore activities:</u> PWC Norfolk also removes asbestos (on a reimbursable basis), from pipes, buildings, etc., but only at shore commands. Contact PWC Norfolk Service Desk, 444-4431, to schedule asbestos removal or a pick up. A completed DD Form 1348-1 is required for disposal. Shore commands must have their job order number when calling for a pick up.

2. <u>Disposal of safes and file cabinets that possibly contain</u> <u>asbestos:</u> Call COMNAVBASE Norfolk Safety 445-6735/6750. They will determine if the safe or file cabinet contains asbestos. If it does contain asbestos, then it must be double wrapped in plastic by the generator and delivered to DRMO Norfolk. Before delivery to DRMO Norfolk, call for appointment and proper paperwork, 445-4450. If transportation is required, call Roland Harper at PWC Norfolk Rigger Shop, 444-2814.

## G. BATTERIES

1. Lead Acid Batteries: The COMNAVBASE Resource, Recovery, and Recycling Program (RRRP) accepts recyclable lead acid batteries at the Q-50 metals yard located at the Norfolk Naval Base. Commands located at the Naval Base, Norfolk and the surrounding area may use this service. These restrictions apply:

a. Only lead acid batteries (marine, vehicular, and forklift) can be accepted.

b. Batteries must be in good condition with caps securely in place.

15 FEB 95

c. The customer must deliver the batteries to the Q-50 metals yard in a government owned vehicle.

d. Hours of operation are Monday-Friday 0700-1500.

e. No turn in document or appointment is required for turn-in to RRRP.

f. The POC at the Q-50 Metals Yard is Mr. Mike Berry at 445-8700.

g. Leaking and Damaged (cracked)Lead Acid Batteries: These must be turned in to PWC Norfolk as hazardous waste. A completed DD Form 1348-1 is required for pick up. Call 444-7548 for pick up appointment. See APPENDIX 3 for DD Form 1348-1 instruction.

2. All other batteries, such as Nickel-cadmium, mercury and lithium must be managed as HW. Turn in to PWC with appropriate paperwork (See Disposal section).

#### H. AEROSOL CANS

1. <u>Empty</u> aerosol cans, other than zinc chromate paint, lead paint and freon, can be placed in a plastic bag (no more than 25 per bag) and deposited in the metal only dumpster.

2. <u>Zinc chromate aerosol paint cans, lead aerosol paint cans</u> and freon aerosol cans, whether empty, full or partially full, must be turned in to PWC Norfolk for disposal. A completed DD Form 1348-1 must accompany your turn in (see APPENDIX 3).

3. <u>All Other Partially full or full</u> aerosol cans that contained HW are to be managed as HW, with proper labeling and a start date. Within thirty days from the start date, commands located on the main Base complex, can deliver the aerosol cans to the Metals Yard in the Q-50 area. The generator must have at least 60 days remaining on this waste to allow time for the cans to be processed. Only commands located on the main Base complex can transport HW on the base; a HW transporter's permit is required to transport HW along public highways. The Metals Yard is equipped to discharge the liquid from the cans and recycle the metal. Call Mr. Mike Berry 445-8700 for more information.

15 FEB 95

#### I. INDUSTRIAL WASTE

1. The Industrial Wastewater Treatment Plant (IWTP), on the Naval Base, Norfolk, can accept certain industrial wastes, such as sodium nitrite, hydrazine and morphaline in bulk tanker truck loads. These industrial wastes cannot be contaminated with any chelating agents such as boiler cleaning compound Ethylenediaminetetraacetic acid (EDTA). IWTP cannot accept Aqueous Film Forming Foam (AFFF) except on a very limited basis. For more information, contact PWC Norfolk Environmental Laboratory at 445-8850. Guidelines for industrial waste disposal are:

a. Allow at least one week to schedule a tanker. Contact PWC Norfolk at 444-7528.

b. Do not mix industrial waste with any other waste. Contact PWC Norfolk at 444-7528 for more information.

c. For boiler cleaning, if at all possible, use sodium nitrite versus EDTA. The disposal cost is less, since it can be treated at the IWTP, rather than going off-Base for disposal.

#### J. X-2 OR X-3 CHEMICALS

1. X-2 and X-3 chemicals can be turned in to DRMO Norfolk. Call DRMO at 445-4450 for a turn in appointment. Requirements for turn in are:

a. When X-2 or X-3 chemicals are turned in, they must be demilitarized ("Demiled"). The Contract Number (Defense Logistics Agency Number), MIL SPEC Number, NSN Number and other identification markings must be scraped off or obliterated on each item and all packing containers. On the DD Form 1348-1, fill in the grouping class (Federal Stock Class) of the material for boxes 8-11, 00 for boxes 12 and 13, and an abbreviated description of the material for boxes 14-20. (For example: 6810 00 hy perxd). The demil code, obtained from the supply system, must appear in boxes 64 and 65.

b. PWC will pick up, demil, and dispose of X-2 or X-3 chemicals on a reimbursable basis.

15 FEB 95

c. The following NSN X-2 spent resins must be taken to DDNV, Building Y-102, 4-1167: 6810-00-181-8321; 6810-00-181-8322; 6810-00-111-0564; 6810-00-111-0567. These NSN's are sent back to the manufacturer for refurbishing and reuse.

d. All other X-2 resins must be turned into PWC for HW disposal.

## K. GAS CYLINDERS

1. If stamped "U.S. Government", "USN", "USAF", or "USA", turn the cylinder in to FISC Norfolk; Call Mr. Peterson at 444-3914, for turn in guidance.

2. If the gas cylinder is from a contractor, return to the contractor.

3. If the contractor cannot be located, return the cylinder to the manufacturer. Many times the manufacturer will pick up the cylinder free of charge to refurbish for future use. Before calling the manufacturer, be sure to obtain all identifying marks on the cylinder, such as:

- a. What material the cylinder contains.
- b. Manufacturer's name, address and phone number.
- c. Department of Transportation (DOT) number.
- d. Serial number.
- e. Service pressure.
- f. Last hydrostatic test date.
- g. Any and all other numbers or identifying marks.

4. If no manufacturer is identified on the cylinder, call Defense General Supply Center (DGSC) in Richmond, VA. with all the above information. They may be able to identify the manufacturer by the numbers and other identifying marks on the cylinder. POC at DGSC is Mr. Dean Crawford, DSN: 695-3230.

5. If the manufacturer does not want the cylinder, ask them to write a letter, on their letterhead, to Commander, Naval Base, Norfolk, stating that they donate the cylinder to the U.S. Government. When this letter is received, the cylinder can be turned in to FISC (see number 1.)

> Address: Commander, Naval Base, Norfolk Code N4

> > 15 FEB 95

# 1530 Gilbert Street, Ste. 200 Norfolk, VA 23511-2797

6. If the gas cylinders were purchased in a foreign country, call COMNAVBASE Environmental Programs Department at 444-3009 for guidance.

7. Cylinders containing halon and Ozone Depleting Substance (ODS), such as freon, or chlorofluorocarbons (CFCs), have specific instructions for procurement and turn in. Please call COMNAVBASE Environmental Programs Department for specific guidance.

# L. BUILDING MATERIALS

Building materials from demolition, which are suspect of containing lead or asbestos, should be analyzed before disposal. Call COMNAVBASE Environmental Programs Department at 444-3009 for guidance.

#### M. APPLIANCES

1. Metal appliances, such as washers and dryers may be turned in to DRMO Norfolk (Camp Allen) Metals Yard. A DD Form 1348-1 is required for turn; call 444-5600 for appointment.

2. Air conditioning units, refrigerators, freezers and any other equipment that once held freon must be certified freon free before turn in to DRMO. PWC Norfolk will evacuate freon from all equipment on a reimbursable basis. To arrange for freon evacuation, if you already have an established job order number with PWC, place a service call to PWC Norfolk at 444-4431. After the equipment is certified freon free, call DRMO for an appointment at 445-1312.

IT IS A VIOLATION OF FEDERAL LAW TO VENT FREON TO THE ATMOSPHERE!

# N. SILVER/SILVER RECOVERY UNITS

1. Silver recovery units used in photograhpy shops, dental or hospital X-ray rooms contain valuable amounts of silver that can be turned in to DRMO's Precious Metals Recovery Program. They accept steel wool type silver recovery units, as well as passive silver cell cartridges and electrolytic flake silver. Specific instructions for turn-in are available in a Standard Operating

15 FEB 95

Procedure on silver recovery units. Call COMNAVBASE Norfolk Environmental Programs Department at 444-3009.

2. Photographic film and X-ray film that has been exposed can also be turned in to DRMO for silver recovery.

3. DRMO Precious Metal Recovery point of contact is Mr. Henry Stewart 444-5113.

4. A DD Form 1348-1 is required for turn-in. (see APPENDIX 3).

# O. METHYL ETHYL KEYTONE PEROXIDE

Methyl ethyl keytone peroxide (MEKP) is a hardening agent used for resin and fiberglass. PWC Norfolk cannot dispose of MEKP; excess MEKP must be disposed of as HW through a separate and very costly disposal process. In order to avoid excess quantities of MEKP, resin kits, NSN 8040-01-091-3748, are available in the supply system and contain enough MEKP and resin for 1 gallon mixtures. DO NOT ORDER MEKP IN UNITS OF ONE GALLON, UNLESS SPECIFIC UNIQUE REQUIREMENTS EXISTS. If you have excess quantities of MEKP, please call COMNAVBASE Environmental Programs Department at 444-3009 for guidance.

#### P. NON-REGULATED WASTE

1. Some wastes are not designated as HW, but still require management to prevent pollution. For instance, used oil with only dirt and water is not regulated as HW; however, proper disposal must still be accomplished to prevent any releases to the environment such as spillage or dumping. Other examples of non-regulated waste are: used antifreeze, used synthetic oil (with no HW constituents), and non-hazardous laboratory reagents.

2. In order to prevent extra handling charges from PWC to manage non-regulated wastes, the generator can deliver them directly to DRMO, SDA-204. DRMO turn-in requirements are listed under the Reutilization section of this Guide. In general, the generator must deliver to DRMO, have a completed DD Form 1348-1 and make an appointment. If it is not known whether or not a waste is HW or non-regulated, please call COMNAVBASE Norfolk Environmental Programs Department at 444-3009.

15 FEP 95

Non-regulated items can be transported in the container they are purchased in. If many small items are alike, they can be placed in a ziplock-type plastic bag for delivery to DRMO.

#### Q. SPEEDY-DRY OR ABSORBENT MATERIAL

1. Speedy dry or other absorbent that has been used to absorb spills is managed the same as the HM or HW that is absorbed in it. For example, if the speedy dry was used to absorb used oil, it will be managed the same as used oily rags; if the speedy dry was used to absorb paint or paint thinner, it must be managed as a HW since paint and thinner are HW.

#### R. UNKNOWNS

1. Generators must do their utmost to prevent a HW from losing its identity and becoming "unknown". However, if contents become unknown, follow the procedures outlined below.

a. SHORE COMMANDS WITH A HAZARDOUS WASTE ACCUMULATION AREA:

1. Label the container "unknown" with a start date.

2. Call PWC Norfolk Laboratory at 445-8850/8851 to have the unknown analyzed. Request characterization for disposal. Either the generator or the lab can take the sample.

3. Write on the container, the date the sample was taken and the words "Waiting for analysis".

4. When the analysis is known, proceed with segregation and disposal in the usual manner.

b. SHIPS HOME PORTED AT NAVAL BASE, NORFOLK:

1. Label the container "UNKNOWN" with any other information available, i.e., the shop, work area or process the waste came from, pertinent MSDS information or what the waste is suspected to be.

15 FEB 95

ن در 1

2. Waste may be turned in to PWC as usual, with a completed DD Form 1348-1. Complete analysis of the waste must be done, before disposal can be accomplished. Disposal cost will be the highest PWC Rate, Tier III, which includes analytical costs of approximately \$1000.

# CONTAINER INFORMATION

#### A. CONTAINER PROCUREMENT

1. If original containers cannot be used to store HW in, used drums may be obtained by the following methods:

a. PWC Norfolk provides used drums when scheduling a HW pick up. Drums are exchanged on a 1:1 basis, only. There is no charge for these drums. Call 444-7528.

b. COMNAVBASE Norfolk Metals Yard in the Q-50 area has free, used drums on a limited basis. No paperwork is required, the generator must pick up. Call 445-8700.

c. DRMO Norfolk at Camp Allen issues used drums. A completed DD Form 1348-1 must be prepared, using the requisition number in boxes 30-41. The requisition number can be obtained from the supply officer or requisition officer who must also sign the DD Form 1348-1. In addition, a letter of authorization must be on file at DRMO Norfolk. There is no charge for used drums. Call 444-5600 for more information and to schedule an appointment.

2. If original containers, or used drums cannot be obtained, new drums can be purchased through FISC: call FISC Customer Service at 444-7100/7891.

55 gallon steel with bung openings: NSN 8110-00-292-9783 55 gallon steel with open tops: NSN 8110-00-823-8121 55 gallon plastic with bung opening: NSN 8110-01-150-0677

Other various container sizes are available according to your needs.

## **B. DISPOSAL OF EMPTY METAL CONTAINERS**

1. Empty 55 gallon drums must not be placed in the metal only dumpster. Empty, smaller metal containers may be placed in the metal only dumpster. All liquid that can be removed, must be removed to prevent contamination of the dumpster. In addition, remove all lids and deposit into the metal only dumpster separately.

2. COMNAVBASE Norfolk Metals Yard, located in the Q-50 area accepts empty 55 gallon drums, as long as they are completely empty. Drums at this facility are crushed and recycled or given to commands to use for HW storage. The generator is responsible for transporting the drums to the Metals Yard. Call 445-8700 for more information.

3. Generators may also deliver empty drums to DRMO Norfolk, Camp Allen Metals Yard. Call 445-1312 to coordinate a delivery. Drums must be completely empty. A completed DD Form 1348-1 is required.

4. Transportation is available on a reimbursable basis from PWC Norfolk. If transportation is necessary contact PWC Norfolk Transportation at 444-8591/2088.

#### ADDITIONAL INFORMATION

#### A. RECYCLING

COMNAVBASE Norfolk operates a Recycling Program that includes aluminum cans, corrugated cardboard, white office paper, white computer paper and scrap metal (see Metal Only Dumpster, below). Information on this and other recycling programs can be obtained by calling the COMNAVBASE Resource Recovery and Recycling Program (RRRP) at 445-9683/8550.

#### **B.** METAL ONLY DUMPSTER

1. Metal only dumpsters are provided as a convenient way for a command to dispose of their scrap metal. However, many items are NOT acceptable in the metal only dumpsters. If any of the below listed items are found in the metal only dumpster, the dumpster will be rejected until the items are removed.

Wood	Trash or Garbage	Furnitu
Hot Water Heaters	Washers	Dryers
Bathroom Fixtures	Compressors	Water I
Air Conditioners	Refrigerators	Wire Ro

Furniture Dryers Water Fountains Wire Rope > 5 ft.

21

Building Supplies Compressed Gas Cylinders Plastic Fire Extinguishers Plaster Light Ballasts Light Covers Light Fixtures Doors Windows Light Bulbs Fire Hoses Tires Skylights Hydraulic Hoses Batteries Garden Hoses Paper Ceiling Tile Concrete

2. Paint cans may be placed in the metal only dumpster, ONLY if they are empty; all liquid paint must be physically removed, and the residual paint is dry and hardened. There must be less than one inch of dry hardened paint in the bottom of the container before it can be placed in the metal only dumpster. Remove all lids from metal containers and deposit in the metal only dumpster separately.

3. Other empty metal containers, 5-gallon or less, are accepted in the metal only dumpster only if they contain less than 1 inch of residue in the bottom.

4. The POC for metal only dumpsters is Mr. Mike Berry at 445-8700.

C. COMMAND ENVIRONMENTAL POINTS OF CONTACT

COMNAVAIRLANT	JOE KING	444-3741
COMNAVSUBLANT	LEON HUTCHINSON	444-3046
COMNAVSURFLANT	CHICK HUNDLEY	444-5660
COMNAVBASE ENVIRONMENTAL	WAYNE GIELDA	444-3009
	L. OBERG-CARPENTER	444-3009
DDNV TURN-IN REQ'MENTS	BILL ALEXANDER	444-1167
DRMO TURN-IN APPOINTMENT		445-4450
DRMO REUTILIZATION INFO	HENRY STEWART	444-5113
FISC REUSE STORE		444-7566
FOSSAC SHELF LIFE EXTENSION	JIM MERRITT	444-1096
METALS YARD TURN-IN	MIKE BERRY	445-8700
NAS Norfolk	FMD	444-0600
PWC HW TURN-IN	BILL WHITMIRE	444-7528
PWC OIL RECOVERY		444-3745

PLEASE SEE SPECIFIC REQUIREMENTS FOR TURN-IN UNDER APPROPRIATE SECTION OF COMMAVBASE NORVA 5090/5, HM/HW MINIMIZATION, REUTILIZATION AND DISPOSAL GUIDE.

15 FEB 95

1. U.S. 1

.....



# PROCEDURES FOR PROCESSING MATERIAL EXCHANGES

The following procedures are available for use by customers in the local area when Defense Distribution Depot, Norfolk, Virginia (DDNV) issues incorrect or defective material. Customers cut of the local area will use standard Report of Discrepancy (ROD) procedures.

1. MATERIAL ISSUED WITHIN 30 DAYS

a. You must have an original copy of the DD Form 1348-1 or DD Form 1348-1A showing that the material was shipped from FISC/DDNV Norfolk, VA.

b. The Julian date in the Document Date block located in block "O" of the DD Form 1348-1 or block "5" of the DD Form 1348-1A must be less than 30 days old. Document dates over 30 days old will be handled using the normal Report of Discrepancy (ROD) procedures.

c. Bring both the material and an original copy of the DD Form 1348-1 or DD Form 1348-1A to the Fleet Liaison Section, in the Customer Service Division, Fleet Support Branch located on the first floor in building W-143. If further directions are required, please call 444-4047 or 444-1926.

d. The Fleet Liaison personnel will review the material and documentation, and prepare a Material Cancellation/Exchange Program package. The customer will be directed to take the material and Material Cancellation/Exchange Program package to doorway 15 at building W-143.

e. The personnel at doorway 15 in building W-143 will take custody of the incorrect or defective material, and direct the customer to the appropriate warehouse for re-issue of the correct "A" condition material.

f. The customer will then proceed to the appropriate warehouse location to obtain their re-issue of material.

g. If the material is unable to be re-issued because there are no more assets available (NIS), the warehouse personnel will annotate the Material Cancellation/Exchange Program package.

1. The customer will then be directed to return the annotated Material Cancellation/Exchange Program package to the Fleet Liaison Section for further processing.

2. The Fleet Liaison personnel will accept the Material Cancellation/Exchange Program package from the customer. They will ascertain if the customer wants the requisition referred to the appropriate Item Manager of if the customer wants credit only. The Fleet Liaison Section will forward the Material Cancellation/Exchange Program package to DDNV, Code XV. DDNV Code XV upon receiving the Material Cancellation/Exchange Program package from the Fleet Liaison Section, will process the credit or pass the requisition as requested.

2. MATERIAL ISSUED OVER 30 DAYS

a. If the Julian date in the Document Date block located in block "O" of the DD Form 1348-1 or block "5" of the DD Form 1348-1A is over 30 days old, use normal Report of Discrepancy (ROD) procedures.

# **APPENDIX 2**

# DD FORM 1348-1 INSTRUCTIONS

1. Segregate material according to Federal Stock Class (FSC), compatibility and container size.

2. Segregate used from unused HM/HW.

3. Place leaking HM in appropriate salvage containers (5, 55, or 85 gallon). These can be supplied by PWC on request. Call 444-7528.

4. Properly complete the DD Form 1348-1 as follows:

# PWC, DRMO, & FISC REUSE REQUIRE THE FOLLOWING INFORMATION ON DD FORM 1348-1:

Boxes: 8-22 FSC and stock number.

23-24 Unit of issue.

25-29 Quantity.

30-35 Unit Identification Complete Doc #.

36-39 Julian Date of turn-in.

# Block: A. Activity generating, (bldg. # and command).

B. Activity shipped to (PWC, DRMO, FISC, etc.)

F. A Point of Contact and phone #

X. Generic name of product.

2. Type of container.

5. Number of containers.

DD. Approved for transfer by signature.

FF. Date shipped.

# IN ADDITION TO THE ABOVE, DRMO ALSO REQUIRES THE FOLLOWING INFORMATION:

Boxes: 52-53 Fund Code (Command Specific)

65-66 Demilitarization Code

74-80 Unit Price

Block: 3. Weight

AA. DOT Certification statement: "The HM is packaged in containers as prescribed in DOT HM Regulations 49 CFR parts 170-189." Original containers meet this certification.

NAS COMMANDS ONLY: When UIC N00188 is used, the DD-1348 must have the following:

Block: DD: Authorized Signature and Stamp FF: Date

APPENDIX 3

# Subj: CHANGE IN PROCEDURE FOR HAZARDOUS MATERIAL TURN-IN FOR REUTILIZATION

COMNAVBASE Norfolk VA 281209Z JUL 92 directed the following changes in procedures effective immediately:

1. OSHA chemical warning label for HM affixed to container prior to turn-in to Defense Reutilization and Marketing Office (DRMO). Material WILL NOT BE ACCEPTED for reutilization without the OSHA label. A material safety data sheet (MSDS) and 1348-1 are, also, REQUIRED for HM turn-in.

2. The Hazardous Material Information System (HMIS) a data base of MSDS can produce DOD labels for items listed in the system. Forms have been ordered and will be available through the Safety Office. The HMIS is available through Safety and Supply.

3. For boxed HM in new/unopened condition, only the original box needs to have the hazardous chemical warning label. A manufacturer packed box with a hazardous chemical label on the outside is sufficient. Provided the box remains as originally packed by the manufacturer, each item in the box does not have to have an OSHA label. HM turned-in outside their original container must be labeled with the OSHA data.

4. If the HM is not found in HMIS, create a hazardous chemical warning label from the manufacturer's MSDS. Do not attempt to create a DOD-type label, because of it's complexity. DOD labels can only be printed from the HMIS. Instead, label each container or original box with the following OSHA required information, info can be written on any adhesive backed label:

a. Identity of the Hazardous
 Chemicals(s).

responsible party.

b. Appropriate hazardous warnings (to include health risks/target organs).
 c. Name and address of the chemical manufacturer, importer, or other

HAZARDOUS CHEMICAL WARNING LABEL 1. CHEMICAL/COMMON NAME 2. HAZARO CODE 3. MSM/LSM 4. PART NUMBER S. ITEM NAME (1) Acute (Ista 6. HAZAROS (J (2) 🕬 (Cartowed) Al (ASI 2000) **660**331 SUGNI ANODERATE SEVERE ---- P.00 -42 C 9 - 7-5% Sinon A D. COMBACT ----& REAGINITY . . . . . . . . . . . . .1~. 7. SPECIFIC HAZARDS AND PRECAUTIONS Instanting Temper Organ (Monte Gen MSDS for functor meansures) & PROTECT U C RESPRATORY A. SECT a. 8725 ( 1000 1000 D 9. CONTACT: 0. COMPLET MALASE B. ADDRESS (SATTLE P.O. BOL GAY. SLOTE. LO CERT and Country) C. EMERGENCY TELEPHONE MUMOER (MOUSE AND COST) 10. PROCUREMENT YEAR FOR MAZARDOUS CHENNCAL SEN 0102-J-402-1100 DD Form 2522 (1C), DEC 85 * 670: 197-87-60

APPENDIX

# NAVY PUBLIC WORKS CENTER NORFOLK ENVIRONMENTAL DEPARTMENT FY95 HAZARDOUS WASTE (HW) RATE STRUCTURE

In an effort to reduce the cost of processing and disposing of HW, PWC Norfolk has revised their HW rate structure. PWC will now have 3 basic rates. They are as follows:

Rate 1. HW that is properly packaged, marked and labeled. COST: \$.60/lb.

Rate 2. HW that needs to be repackaged, marked or labeled. COST: \$.88/lb.

Rate 3. HW is not properly identified.

COST: \$.98/1b.

In addition to one of the 3 basic rates, generators will be charged the contract disposal cost established through the DRMS/DRMO HW disposal contract.

HW received will be prescreened to ensure that waste has been properly identified by the generator on both the DD Form 1348-1 and the container. Waste that does not appear to be as described by the generator will have a sample taken and sent to the laboratory for analysis. If the analytical data supports what the generator has stated on his turn-in document, then FWC will pay for the cost of the analysis. However, if the analytical data shows something other than what the generator has indicated, the generator will be billed the cost of the analysis. Analytical cost for an unknown drum of waste is approximately \$928.00 This cost is in addition to Rate 3, plus the DRMO contract cost.

#### EXAMPLES:

1. 1 x 55 GAL DRUM OF WASTE PAINT (WT. 550 LB.) DRUM PACKAGING AND LABELING REQUIREMENTS. RATE 1 (550 LB. X \$.60/LB) =	COMPLIES WITH ALL \$330.00
DRMO CONTRACT COSTS (550 LB. X \$.55/LB) = TOTAL COST FOR DISPOSAL	<u>\$302.50</u> \$632.50
2. 1 x 55 GAL DRUM OF WASTE PAINT (WT. 550 LB.) DRUM	NEEDS REPACKAGING DUE
$\frac{10 \text{ OFEN CONTRIBER.}}{10 \text{ OFEN CONTRIBER.}} = \frac{10 \text{ OFEN CONTRIBER.}}{10 \text{ OFEN CONTRIBER.}}$	\$484.00
RATE 2 (550  LB, x 9.007  LB)	\$302.50
TOTAL COST FOR DISPOSAL	\$786.50
3. 1 x 55 GALLON UNKNOWN/MISIDENTIFIED HW (WT. 550 LB DIFFERENT THAN WHAT WAS DOCUMENTED ON DD FORM 1348-1.	.) ANALYSIS COMES BACK
<b>BATE 3</b> (550 LB, X S.98/LB) =	\$539.00
ANALYTTCAL COSTS	\$928.00
(ANALYSIS SHOWED THE WASTE WAS PAINT AND WATER) DRMO CONTRACT COSTS (550 LB. X \$.55/LB) TOTAL COST FOR DISPOSAL	<u>\$302.50</u> \$1769.50

It is important that all generators identify processes that generate HW and mark containers appropriately so identity does not become unknown. Turn in document DD Form 1348-1 must also identify all HW constituents. Properly packaged, marked and identified HW is a big step towards reducing HW disposal costs. Point of contact concerning HW disposal costs is Ms. Glen Delk at 445-2917.

# TURN-IN PROCEDURES FOR NAS HWAA CUSTODIANS

To ensure Hazardous Material/Hazardous Waste are reutilized and recycled to the maximum extent possible, all HW being picked-up from NAS Norfolk by PWC Norfolk must have a DD1348-1 with an authorized signature, date signed, and a stamp. The procedures are as follows:

1. For HWAA custodians: if possible, submit paperwork 30 days prior to the 90 day time limit.

2. Exhaust all possibilities for turn-in, cross-decking, and reutilization. (see APPENDIX 1)

3. Properly fill out the DD1348-1 with all required information. (see APPENDIX 3) DO NOT forget a point of contact and phone number.

4. Have the DD1348-1 signed by an authorized person located at NAS Norfolk, Facilities Management Department (FMD), Building U-46. You may call ahead at 4-2048/0600 to be sure someone is available for signature. The following personnel are authorized to sign:

Mr. W. D. Minton, Mr. W. D. Rothwell, Mr. C. Silo, Mr. S. Pearson, and BTC R. Hayes

5. NAS Norfolk FMD will fax a copy of the DD1348-1 to PWC Norfolk as soon as it has been signed.

6. Call PWC Norfolk HW turn-in at 4-7528 to verify receipt of the DD1348-1 and to schedule a pick-up.

7. If complications arise in this process or if non-routine circumstances occur, call Dave Minton at NAS Norfolk FMD (4-2048/0600) to make arrangements.

# APPENDIX 6

# **APPENDIX C**

ŗ

and the second se

HAZMAT TYPE	TURN-IN POINT	PAPERWORK REQUIREMENTS	DRUM/CONTAINER LABELING REQUIREMENTS
			I AREI DRIMS AS TO
USED PAINTS, LIQUIDS	PWC DAILY PCK-UP	1348-1	CONTENTS
USED PAINTS, SOLIDS	PWC DAILY PICK-UP	1348-1	LABEL DRUMS/CONTAINERS AS TO CONTENTS
*Keep seperate drums for each of the following: Paint Waste Rags, Brushes & Roller Covers, and Solidified Paint (less than 5 gl size)			
OILY, GREASY, FUEL SOAKED RAGS	PWC 2 TIMES A WEEK PICK-UP	1348-1	LABEL WITH SHIP'S UIC & NAME
HALOGENATED SOLVENTS	PWC DAILY PICK-UP	1348-1	LABEL DRUMS AS TO CONTENTS
NON-HALOGENATED SOLVENTS	PWC DAILY PICK-UP	1348-1	LABEL DRUMS AS TO CONTENTS
CORROSIVE LIQUIDS	PWC DAILY PICK-UP	1348-1	LABEL DRUMS AS TO CONTENTS
*All Acid based materials			

.

Enc1 (4)

5

.

LABEL CONTAINERS AS TO CONTENTS		FOR EACH CONTAINER: 2252 LABEL & ALL APPROPRIATE MSDS's	LABEL DRUMS AS TO CONTENTS			
1348-1	1348-1	1348-1	1348-1	N/R	N/R	
PWC DAILY PICK-UP	PWC OIL WASTE & RECOVERY SCHEDULED PICK-UP	DRMO, SOUTH ANNEX	PWC DAILY PICK-UP	PWC METALS YARD	PWC METALS YARD	
GREASES	USED PETROLEUM BASED OILS ONLY	USED SYNTHETIC BASED OILS ONLY	MIXTURE OF ANY TYPE OILS	LEAD ACID BATTERIES * All caps MUST be on batteries	EMPTV HM CONTAINERS	* Aerosol cans, Paint/Non-skid cans (1"or less dried paint), oil, fluid, and grease cans

Page 2

•

.

NICAD, LITHIUM & MAGNESIUM BATTERIES	DRMO, SOUTH ANNEX	1348-1	FOR EACH CONTAINER, 2252 LABEL & ALL APPROPRIATE MSDS's
ALKALINE BATTERIES	SEE NOTE ON PAGE 4; IF DRMO TURN-IN SAME AS ABOVE	1348-1	FOR EACH CONTAINER, 2252 LABEL & ALL APPROPRIATE MSDS's
EXPIRED SHELF-LIFE MATERIAL * Synthetic oils, fluids, photo chems. X-2 Chems. MUST be MCC	DRMO, SOUTH ANNEX	1348-1	THE ABOVE RULE APPLIES
"A" and in original containers PHOTOGRAPHIC FILM, PAPER & SILVER RECOVERY MATERIALS	DRMO, SOUTH ANNEX	1348-1	THE ABOVE RULE APPLIES
EXCESS/EXPIRED SHELF-LIFE MATERIAL *MUST BE MCC "A"	FISC RE-USE	1348-1	ORIGINAL CONTAINERS ONLY
EXCESS HM, MCC "A" ONLY	SITM	1348-1	ORIGINAL CONTAINERS ONLY

Page 3

•

•

For turning in of HM to DRMO, every container on a pallet must have a DD2252 label and a package of all MSDS's for all NSN's you are turning in to DRMO	Dumping or abandoning of any HM illegally is punishable by all Federal, State and Local laws. If caught, punishments of fines and/or jail may be incurred.
Any HM that is MCC "H" and that will not be accepted by MTIS, FISC Re-Use or DRMO MUST be turned into PWC for proper disposal	The biggest thing to remember before you turn-in any HM, is if in doubt, call a POC at PWC, COMNAVBASE, MTIS, FISC Reuse or DRMO first to find out where the HM goes to.
For Alkaline Batteries (AA's, C's, D's & Battle Lantern): if you have a full 55 GL drum or more of alkaline batteries, turn them into DRMO. Inport, they can go into the regular trash in small quantities only.	Most of the above listed HM goes to either PWC or any of the other turn- in points on a fairly routine basis. From time to time, you may receive some HM, i.e. OBA & EEBD canisters (spent). They get containerized and go to PWC for disposal.
NOTES:	NOTES:

•.

HM AT SEA TURN-IN MATRIX

1

.

HAZMAT TYPE	TURN-IN POINT	CONTAINERIZATION	DRUM/CONTAINER LABELING REQUIREMENTS
USED PAINTS, LIQUIDS	HICS TRAILER	YES	LABEL DRUMS AS TO CONTENTS
-			
USED PAINTS, SOLIDS	HICS TRAILER	YES	LABEL DRUMS/CONTAINERS AS TO CONTENTS
*Keep seperate drums for each of the following: Paint Waste Rags, Brushes & Roller Covers, and Solidified Paint (less than 5 gl size)			
OILY, GREASY, FUEL SOAKED RAGS	HICS TRAILER	HOLD IN ACCUMULATION AREA FOR BURNING	DOUBLED BAGGED IN PAPER
HALOGENATED SOLVENTS	HICS TRAILER	YES	LABEL DRUMS AS TO CONTENTS
NON-HALOGENATED SOLVENTS	HICS TRAILER	YES	LABEL DRUMS AS TO CONTENTS
CORROSIVE LIQUIDS	HICS TRAILER	YES	LABEL DRUMS AS TO CONTENTS
*All Acids			

Enc1 (5)

N.N.

HM AT SEA TURN-IN MATRIX

2

.

•

ALKALINE BATTERIES; AA's, D's, C's & Battle Lantern	HICS TRAILER	YES	LABEL CONTAINERS AS TO CONTENTS
ED PETROLEUM BASED OILS (INCLUDES JP5)	HICS TRAILER	YES, ONLY IF 100% (GOES INTO HOLDING TANK)	LABEL DRUMS AS TO CONTENTS
SED SYNTHETIC BASED OILS ONLY	HICS TRAILER	YES	LABEL CONTAINERS AS TO CONTENTS
AIXTURE OF ANY TYPE OILS	HICS TRAILER	YES	LABEL DRUMS AS TO CONTENTS
LEAD ACID BATTERIES * All caps MUST be on batteries	HICS TRAILER	YES	LABEL CONTAINER AS TO CONTENTS
EMPTY HM CONTAINERS	HICS TRAILER	HOLD IN ACCUMULATION AREA FOR OVER BOARD DISCHARGE	
* Aerosol cans, Paint/Non-skid cans (1"or less dried paint), oil, fluid, and grease cans			

•

		Ż		Ż	 ż			ż		
	LABEL CONTAINERS AS TO CONTENTS	PALLETIZE FOR INPORT TUR IN		PALLETIZE FOR INPORT TUR IN	PALLETIZE FOR INPORT TUR IN			PALLETIZE FOR INPORT TUR IN		
	YES	ACCEPT ONLY PRIOR TO ENTERING PORT		ACCEPT ONLY PRIOR TO ENTERING PORT	ACCEPT ONLY PRIOR TO ENTERING PORT			ACCEPT ONLY PRIOR TO ENTERING PORT		
	HICS TRAILER	HICS TRAILER		HICS TRAILER	HICS TRAILER		•	HICS TRAILER		
	NICAD, LITHIUM & MAGNESIUM BATTERIES	EXPIRED SHELF-LIFE MATERIAL	* Synthetic oils, fluids, photo chems, X-2 Chems. MUST be MCC "A" and in original containers	PHOTOGRAPHIC FILM, PAPER & SILVER RECOVERY MATERIALS	EXCESS / EXPIRED SHELF-LIFE MATERIAL	* MUST be MCC "A" and in original containers		EXCESS HM	* MCC "A", 1 year or more remaininig on Shelf-Life and in original containers	

Ì

• 

HM AT SEA TURN-IN MATRIX

•

Page 3

Ops @ 444-3745 (they pay for pick-up & ok Pick-up schedule: M-F 0800-0930 at Pier | Pick-up schedule: T & TH 1230 at Pier 11 Schedules Pick-up of more than daily pier | Provides for pier-side pick-up of drums of Special Requirements: MUST call Port for PWC to pick up). Call PWC Oil to confirm, get date/time for pick-up for oily, greasy fuel soaked rags **PWC OIL RECOVERY** petroleum based fluids **POC: Mr. Dickerson** 445-1546 Special Requirements: Over 4 pallets of **PWC ENVIRONMENTAL DISPATCH** pick-up allowence of 4 pallets of HM 11 for ONLY 4 pallets or less HM, call to schedule pick-up **POC: Bill Whitmire** 444-7528 HM Offload Conferences (i.e. Storeroom What he does: Basically, the answer man **Special Requirements: Call to schedule COMNAVBASE ENVIRONMENTAL** concerning HM Offloads, helps with POC: Wayne Guilda disposal problems 444-3009 offloads)

NOB HM TURN-IN AND REUSE GUIDE

Encl (6)

DRMO		445-4450	F- HM not recyclable, not HW; Expired Photo Chems, Synthetic Oils, Expired X-2 Chems	Special Requirements: Call to make sure they can take material, if so schedule appointment for M W or F only; let them know material & # pallets/containers	
DDNV / MTIS	POC: William Alexander	444-1167	Any HM having 1 year or more of Shelf Life remaining	Special Requirements: Shelf-Life + 1 ye and MCC "A"	If they say they will take material, they may require on-site inspection prior to taking material
FISC REUSE	Mike Brown POC: <del>Craig Hughes</del>	444-7566	Expired MCC "A" HM	Special Requirements: Call first to make sure they can take your material	If they say they will take material, they may require on-site inspection prior to taking material

NOB HM TURN-IN AND REUSE GUIDE

•

Page 2

# APPENDIX D
# LESSON TOPIC: HAZARDOUS MATERIAL CONTROL & MANAGEMENT (HMCGM)

AVERAGE TIME: 60 Minutes (Handling, Storage and Disposul can be expanded into separate lectures)

### INSTRUCTIONAL MATERIALS:

#### **REFERENCES:**

a. OPNAVINST 5100.19B, Chapters B3 and C23

# (surface ships) or D15 (submarines)

- b. OPNAVINST 5090.1A, Chapter 17
- c. NSTM, Chapter 670
- d. NSTM, Chapter 593

#### TRAINING AIDS:

- a. Videotape: "Hazardous Materials Control Afloat" (804939 DN)
- b. Samples of hazardous materials and hazardous waste labels
- c. HANDOUT #1 Sample MSDS
- d. Quiz

#### **OBJECTIVES:**

The student should be able to define a hazardous material and hazardous waste, understand the Navy's hazardous waste minimization program and the command's responsibilities. The student should understand the general handling, storage, and disposal requirements for the hazardous materials they use on board. The student should know where to get, and be familiar with the information contained in, a Material Safety Data Sheet (MSDS).

#### TARGET AUDIENCE:

All users of hazardous material and supply personnel, including supervisors; who handle, store or dispose of hazardous materials.

#### **REQUIREMENTS:**

Initial and annual training for all hazardous material users, in accordance with OPNAVINST 5100.19B.

formed to a mount of flammable materials in flammables cabinets, per space, cannot

:pəəɔxə

- . anolise 01 . A
- . 30 gallons.
- C. The capacity of the cabinet.
- . snolleg 03 .0
- . 12 gallons.

.llinb leunne ne 7. The DCA must train damage control personnel in hazardous material spill response and conduct

esie7 .8 euiT .A

3. To safely handle a hazardous material during PMS, you must wear the protective equipment

:b912il

1.00

10 A 10

- A. On every hazardous material label.
- B. On the Maintenance Requirement Card (MRC).
- C. In the OPNAVINST 5100.198.
- D. On the shipping box.
- E. None of the above.

9. All empty hazardous material containers may be thrown in the dumpster.

- A. True
- esle7 .8
- 10. The ship needs to label hazardous materials if:
- A. The hazard label was on the shipping box and inner
- containers had no hazard labels.
- B. The material is put into an unlabeled container.
- D. A hazard warning was not included on the label. C. The label is damaged or destroyed.
- E. All of the above.

#### REFECTION

Hazardous materials are used daily by every ship, in maintenance, repair, and cleaning. We could not maintain our operational effectiveness without using hazardous materials. In using hazardous materials we also produce waste. Hazardous materials can be used effectively and safety if care is taken in the handling, storage, and disposal. The Navy has developed a program to comply with OSHA and EPA regulations, and help minimize the amount of hazardous waste we produce. Strict regulations exist on storage of hazardous materials aboard ship to avoid fires and injury. All hands should understand and be aware of hazardous materials handling, storage and disposal requirements.

## A. BACKGROUND

- 1. Hazardous materials
  - a. Hazardous material is defined as any material which, because of its quantity, concentration, or physical or chemical characteristics, may pose a substantial hazard to human health or the environment. Hazardous materials include:
    - (1) Flammable and combustible materials.
    - (2) Toxic or poisonous materials.
    - (3) Corrosive materials, such as strong acids and alkalies.
    - (4) Oxidizing materials.
    - (5) Aerosols.
    - (6) Compressed gases.
  - b. Some materials, considered hazardous, are not included in this program and are covered by separate directives. They include ammunition, radioactive material, medical waste, NBC or CBR materials, propellants, PCBs, and bulk fuels. The directives covering these items are:
    - (1) NAVSEA OP-4, Ammunition Afloat For weapons propellant and explosive guidance.
    - (2) NSTM, Chapter 073 and NWP 62 For NBC/CBR materials.

(3) NSTM, Chapter 541 - For bulk fuels.

(4) NAVMED P-5055 - For radioactive materials.

(5) OPNAVINST 5100.198, Chapter B1 - For disposal of asbestos waste material.

(6) NAVSEAINST 5100.38 - For mercury control.

(7) NAVSEA 9593-A1-MAN-010 - For PCBs.

(8) NAVMEDCOMINST 6280.1 - For medical waste.

(9) OPNAVINST 5090.1A - For plastic waste.

c. Discarded or excess hazardous material can be:

 Hazardous materials turned in to stores (HMTIS), which can be returned to the supply system, if in like-new condition.

(2) Hazardous materials turned in for disposal (HMTID), which is turned over to a base Public Works Department or other authority for disposal.

GIVE EXAMPLES OF HAZARDOUS MATERIALS USED ON BOARD COMMON TO YOUR SHIP.

2. The Right-To-Know Law

a. A new OSHA regulation was adopted in the late 1980's. This regulation, 29 CFR 1910.1200, is titled the "Hazard Communication Standard."

(1) This is also known as the "Right-to-Know" Law.

(2) This law says that every employee has the right to know about the hazards in their workplace and how to protect themselves from the hazards.

(3) The law applies to all U.S. employees, including Federal civilian and military personnel worldwide.

b. The "Hazard Communication Standard" affects manufacturers of hazardous materials, the employers who purchase them, and the employees who use them.

VII-8

- (1) Manufacturers must properly label materials.
- (2) Manufacturers must provide a Material Safety Data Sheet (MSDS) for each hazardous material they produce.
- (3) The hazardous material user must be familiar with the hazards and precautions on the MSDS for everything they use or handle. These MSDSs must be readily available to the user upon request. Items used or handled must also be properly labeled.
- c. These regulations also apply to forces afloat. OPNAVINST 5100.19B, Chapters B3 and C23 provide this information.

SHOW VIDEOTAPE "HAZARDOUS MATERIALS CONTROL AFLOAT." ADD 18 MINUTES FOR VIDEOTAPE.

### B. LABELING OF HAZARDOUS MATERIALS

- 1. Labeling provides the handler, shipper, and user of a hazardous material with critical information.
- 2. Every container of hazardous material must be labeled. Tank trucks and railroad tank cars, must be placarded with Department of Transportation (DOT) symbols.
- 3. Although the format of the label may differ from company to company, certain information is mandatory under the Hazard Communication Standard:
  - a. Identity of the material or chemical.
  - b. Name and address of the manufacturer or responsible party.
  - c. The appropriate hazard warning.
- 4. The Department of Defense (DoD) has a Hazardous Chemical Warning Label (DD 2521, 2522). They are used on DoD manufactured hazardous materials, re-packaged containers, tanks of hazardous chemicals, and unlabeled materials already in the DoD system.
- 5. There are several types of multicolored signs, placards, and decals providing visual hazard warnings. They can be symbols, words, pictures, shapes, or any combination. Two common hazard warnings are:

- a. National Fire Protection Association NFPA 704 diamond symbol system. It shows four colored blocks in a diamond formation. The top diamond is colored red for fire hazard. Clockwise, the next diamond is yellow, for reactivity; a blank diamond at the bottom for special information; and a blue diamond for health hazards. Number codes zero through four are used to show the degree of hazard.
- b. Department of Transportation (DOT) hazard identification is a colored diamond shape symbol for hazard class, such as flammables, corrosives, oxidizers, and explosives. They are used on hazardous materials containers shipped in interstate commerce.

SHOW AN EXAMPLE OF THE NFPA SYMBOL AND OTHER DECALS OR PLACARDS, IF AVAILABLE.

c. Sometimes international symbols for goggles, gloves, aprons, and respirators are used. They are small pictures (called icons) on the label indicating the required protective equipment.

d. All these labels may be used to supplement the required OSHA labeling. They <u>do not meet the OSHA labeling</u> requirements alone. They should not be placed by Navy personnel on containers which are already properly labeled.

6. If you dispense a hazardous material into an unmarked container, you must transfer the label information to the new container:

- a. Identity of the material or chemical.
- b. Name and address of the manufacturer or responsible party.
- c. An appropriate hazard warning.
- If you buy or receive a hazardous material with the minimum required labeling, you do not have to add any additional labeling.
- 8. If a hazardous material is delivered to your ship without proper minimum labeling, you may REFUSE to accept the material from the supply system. If you accept the shipment, you must properly label the hazardous material.

SHOW EXAMPLES OF LABELS ON HAZARDOUS MATERIALS.

# C. MATERIAL SAFETY DATA SHEETS (MSDS)

- DISTRIBUTE HANDOUT #1, OR AN MSDS FOR ITEM USED ON BOARD.
  - Manufacturers produce Material Safety Data Sheets (MSDS) based on their testing and research of their products. By law, they must provide the data to hazardous materials users.
  - 2. The MSDS shall be in English and shall contain at least the following information:
    - a. Identity of the material.
    - b. Hazardous ingredients.
    - c. Physical and chemical characteristics.
    - d. Physical hazards.
    - e. Reactivity.
    - f. Health hazards.
    - g. Precautions for safe handling and use.
    - h. Control measures.
    - i. Routes of entry into the body.
    - j. Emergency and first aid procedures.
    - k. Date of preparation of the MSDS or last change.
    - Name, address and phone number of a responsible party who can provide additional information on the hazardous material and appropriate emergency procedures.
  - 3. Manufacturers may use any format or arrangement of this information, but every MSDS must include all the items.
  - 4. The Department of Defense has developed a standard MSDS system for Navy people to use; who, as part of their job handle, store, use, or dispose of hazardous materials. The Hazardous Materials Information System (HMIS) is a collection of information taken from manufacturer's Material Safety Data Sheets. The HMIS also contains transportation and disposal information.

 a. HMIS is available on microfiche or Comp. ct Disc
 Read Only Memory (CD-ROM). Each ship has either the microfiche or the CD-ROM HMIS.

INDICATE WHAT YOUR SHIP HAS AVAILABLE AND WHERE.

- b. Some ships also have a paper copy file of Material Safety Data Sheets (MSDS) collected from various manufacturers and containers.
- 5. EVERY hazardous material user must have ACCESS to MSDSs for the items they use or handle. The ship must have an MSDS for every hazardous material on board.
  - a. Every sailor using a hazardous material must be trained on the hazards associated with that material before they use it. MSDSs, on CD-ROM, microfiche, or hard copy, must be readily available to the individual to view it if they so desire.
  - b. The Medical Department must hold a file of MSDSs for every item on board for their use in case of an emergency. This can be a hard copy file or CD-ROM HMIS.
  - c. The ship's Hazardous Material/Hazardous Waste Coordinator must have an MSDS, on file or on CD-ROM HMIS, for every hazardous material onboard.
  - d. The Supply Department must hold an MSDS for every item they procure. Sometimes they must request the MSDS directly from the manufacturer or distributor.

## D. PROGRAM RESPONSIBILITIES

- According to OPNAVINST 5100.198, Chapter B3, each afloat command must have a written hazardous materials/ hazardous waste program.
- 2. Each CO must appoint, in writing, a Hazardous Materials/ Hazardous Waste Coordinator.
- Although every supervisor and crew member has certain responsibilities within this program, the HMC&M Coordinator is the primary program manager. Our HMC&M Coordinator is _____.

COVER RESPONSIBILITIES IN OPNAVINST 5100.19B, PAGES B3-1 THROUGH B3-5, IF DESIRED. GIVE SPECIFICS FOR YOUR COMMAND.

- 4. All hands must follow the strict handling, storage, and disposal regulations provided on hazardous materials.
- 5. The Division Officer and Work Center Supervisor play a critical role in the management of in-use hazardous materials and training of their personnel.
- 6. All supervisors must receive annual training on hazardous materials procedures.
- All supply personnel must be trained when reporting onboard and then annually in hazardous materials procedures and the handling of hazardous materials turned in to stores (HMTIS) or turned in for disposal (HMTID).
- 8. All hands must receive job-specific training on hazardous materials when reporting onboard and then annually.
- 9. Damage control teams and fire parties must receive annual training, including a drill, on hazardous material spill response and emergency procedures.
- 10. Monthly spot checks and quarterly evaluations are made of the program to ensure compliance and effectiveness.

THIS SECTION MAY BE EXPANDED AND SERVE AS A SEPARATE LECTURE.

## E. HAZARDOUS MATERIALS HANDLING

- Different hazardous materials may require different handling precautions. Navy publications, such as the NSTMs, and PMS MRCs may give these precautions.
  - a. The MSDS also provides handling precautions for the material in the section titled, "Precautions for Safe Handling and Use."
  - b. Safe handling often involves the use of personal protective equipment, ventilation, and specific precautions such as keeping it away from open flames.
    - (1) The MSDS provides a list of manufacturer recommended protective equipment and clothing.
    - (2) The Maintenance Requirement Card (MRC) lists protective clothing and equipment in the "Tools, Parts, Materials, Test Equipment" block.
    - (3) Technical manuals and other procedures may list protective equipment.
  - c. In general, all hazardous materials should be handled carefully, by trained personnel - even common cleaning materials.
- General handling and use requirements have been defined for hazardous materials. They are given in OPNAVINST 5100.198, Volume II, Chapter C23. They include:
  - a. Work center supervisors shall ensure, prior to using any hazardous material, people under their supervision were trained on the hazards associated with that material. They must also be provided with necessary protective clothing and equipment (for example, respirators, goggles, or gloves.)

- D. Workcenter supervisors shall ensure there is supply and exhaust ventilation in all spaces where people use hazardous materials. The systems must be in good operating condition and have been evaluated as adequate by an industrial hygiene survey.
- c. Never exceed one week's requirement as a ready supply of any hazardous material. Return surplus material to its appropriate storage area at the end of the watch or days work.
- d. Avoid breathing vapors or dust when using hazardous materials.
- e. Avoid contact with the eyes or prolonged contact with skin when using hazardous material.
- f. Prohibit smoking, drinking, or eating in areas where hazardous material is used.
- g. Ensure personal protective equipment (such as eye, ear, and respiratory) is readily available to all people working with hazardous material.
- h. Eve protection against irritating vapors or corrosive liquid chemicals shall consist of chemical goggles worn under a full face shield.
- i. The Gas Free Engineer must test and certify any confined or enclosed spaces safe for entry.
- j. Use a respirator with the appropriate filter or cartridge when exposed to particulate matter, vapors or hazardous gases.
- k. Consult the MSDS for specific safe handling requirements.

THIS SECTION MAY BE EXPANDED AND SERVE AS A SEPARATE LECTURE.

- F. STORAGE OF HAZARDOUS MATERIALS
  - 1. Storage, or the lack of safe storage, for hazardous materials is a major problem on board ship.
  - Storage of in-use, flammable and combustible materials can be a fire and explosion hazard. In-use storage of reactive chemicals, such as oxidizers and corrosives, can cause both health and fire hazards.
  - Each type of hazardous material has different storage requirements. Some require only cool, dry storage. Others, such as flammables, must be stored in a space with a fire suppression system. These storage requirements are listed in OPNAVINST 5100.198 Chapter C23, and NSTM, Chapter 670. General storage requirements include:
    - a. Mark stowage compartments to identify the type of hazardous material stored and keep the compartment/materials clean and dry at all times.
    - b. Provide both supply and exhaust ventilation in stowage areas.
    - c. Allow only authorized personnel in stowage areas.
    - d. When transferring material from one container to another, ensure the existing precautionary labeling is retained and new containers labeled.
    - e. Stack containers so they will not crush containers under them, become imbalanced, or be hard to get to. For example, do not place containers in walkways, or balanced in the overhead.
    - f. Issue material on a first-in-first-out basis, considering shelf-life.
    - g. Prohibit smoking, drinking, and eating in stowage areas.
    - h. Ensure open flames or spark producing items are not permitted in stowage areas.

- i. Gas Free enclosed or confined stowage areas before entry or if the ventilation malfunctions and may allow the build-up of gases or vapors.
- j. Operate only approved electrical switches in an explosive or suspected explosive atmosphere. Maintain explosion-proof fixtures in applicable hazardous material stowage areas.
- k. Seal and protect all containers against physical damage and secure for sea.
- Store powdered or solid type materials on shelves above liquid type chemicals. If possible, keep liquids low to the deck and in coamings or catch trays to contain spills.
- 4. Storerooms for bulk supplies are designed into the ship. The flammable liquid storeroom has special gas-tight light fixtures, an automatic fire extinguishing system, alarms and water-tight doors or hatches. Bulk storerooms are controlled by the Supply Department and hold items prior to issue. These storerooms cannot normally be used for in-use material because of custody and inventory procedures.
- 5. Flammable liquid issue rooms are provided on most ships, under the control of the Deck Department, Repair Department, or other user. They are equipped with alarms, automatic fire extinguishing systems, water-tight doors or hatches, and gas-tight light fixtures. The issue rooms are used for bulk storage of in-use flammable materials.
- In-use hazardous materials in a workshop or office space are limited to one week's supply of open, in-use material. Hoarding or stocking up on hazardous materials, even cleaning products, is not authorized if it exceeds the weekly working stock.
- 7. Some shops are equipped with Flammable Liquid Storage Cabinets or Lockers (commercial or NAVSEA-type lockers). They are normally painted yellow, have self-closing doors, and have a sign saying "Flammable material, keep fire away". No matter how big the locker or cabinet is, or how many are in the space, you are not authorized to keep more than 30 gallons of flammable materials in one space.

Note: This applies to lockers, not to flammable storerooms which have features discussed in paragraph 4.

- 8. To determine hazardous material in-use storage requirements you must determine if:
  - a. The material is compatible with other chemicals, or if it must be segregated from any nearby hazardous materials.
  - b. What is the hazard classification? Is it an acid, oxidizer, alkaline, flammable, combustible, toxic, aerosol or compressed gas?
  - c. How much of the material will be kept on-hand as weekly working stock in-use?
  - d. Are there any special storage requirements listed on the MSDS?
  - e. What is the flash point of the material?
- 8. Consult OPNAVINST 5100.198 Chapter C23 and NSTM, Chapter 670 to determine special storage requirements.

GO TO OPNAVINST 5100.198 CHAPTER C23, AND READ THE STORAGE REQUIREMENTS FOR IN-USE FLAMMABLES, FOR EXAMPLES.

 Personnel should never bring a new hazardous material, even cleaning material, into the workcenter without consulting the work center supervisor or division officer for storage authorization.

DISCUSS THE STORAGE REQUIREMENT ON AN MSDS FOR A COMMONLY USED HAZARDOUS MATERIAL.

THIS SECTION MAY BE EXPANDED AND SERVE AS A SEPARATE LECTURE.

# G. DISPOSAL OF HAZARDOUS MATERIALS

- Due to strict EPA and OSHA regulations, the disposal of hazardous materials is carefully controlled to avoid damage to the environment and hazards to personnel.
  - a. "Cradle to grave" regulations apply to all hazardous materials. A paperwork trail follows a hazardous material from the manufacturer to the shipper, warehouse, handler, and collector, to the ultimate disposal site.

YOU CAN USE THE EXAMPLE OF LOVE CANAL, WHERE A HAZARDOUS WASTE DUMP CONTAMINATED THE LAND AROUND A HOUSING TRACT. THE AREA HAD TO BE ABANDONED BECAUSE PEOPLE LIVING IN THE AREA WERE DEVELOPING HEALTH PROBLEMS.

- b. Each "generator" of hazardous waste must follow strict regulations. In the Navy, shore establishments, such as naval bases and shipyards, are designated hazardous waste generators. Normally, the base Public Works Department takes charge of waste disposal.
  - (1) Afloat units are not considered "generators" of hazardous waste. Ships turn excess hazardous materials to their base Public Works or receiving authority. Once the material reaches Public Works custody they will arrange disposal, re-use, or recycling.
  - (2) Overseas, naval bases or the foreign base husbanding agent will contract to remove hazardous materials for disposal. These circumstances fall under different, local regulations.

- 2. HMTIS, or hazardous materials turned-in to stores.
  - Excess, new, usable hazardous material may be turned-in to the Supply Department for reissue or to the base supply center or Defense Reutilization and Marketing Office (DRMO).
    - (1) The materials must be in unopened, clean condition, with no damage to the container.
    - (2) A transfer document, 1348-1, must be completed to return materials to DRMO or the Supply Center. Your Supply Department is familiar with these procedures.
- 3. HMTID, cr hazardous materials turned-in for disposal.
  - a. HMTID is excess, opened, damaged, or partially full containers of material, items contaminated with hazardous material such as rags and protective clothing, and the remains of processes or procedures such as chemical testing.
  - b. Neither the material nor the container can be reused. This includes containers having residue of a hazardous material, such as lead paint, or more than one inch of the hazardous material remaining.
  - c. HMTID cannot be mixed. For example, you cannot put waste paint, hydraulic fluid, lube oil, and paint thinner all in one can for disposal. The combination may react and cause a fire, explosion, or give off toxic vapors. Segregate each type of material. Ideally, return each type in the original container.
  - d. Store HMTID where the original material was stored until removing it from the ship. If you originally kept the material in the flammable locker, you must keep the discarded material in a flammable locker or the same type safe stowage.
  - e. HMTID must be labeled as to contents. The "WARNING-HAZARDOUS WASTE" label (NAVSEA 5100/4) is an optional label you may use to mark unlabeled containers. If the contents are not known, mark the container "unknown waste" and isolate it until
     turn over.

f. HMTID is turned in to ______ in the Supply Department, who prepares a 1348-1 form and contacts Public Works Department for pick-up.

DISCUSS YOUR OWN SHIP'S DISPOSAL PROCEDURES HERE, IF THEY DIFFER FORM THOSE PRESENTED ABOVE.

g. Never throw any hazardous material, or even empty hazardous material containers, into the regular trash or dumpsters unless your supervisor approves. Each base has federal, state, and local laws on hazardous waste. They may differ from base to base. At our homeport, we are required to:

DISCUSS YOUR LOCAL PUBLIC WORKS REQUIREMENTS, AND TELL WHAT ITEMS YOU MAY DISPOSE OF IN THE REGULAR TRASH. SHOW A HAZARDOUS WASTE LABEL.

- h. OPNAVINST 5100.19B, Appendix B3-C lists the disposal requirements for various hazardous materials. For example, you must put waste oils in containers for shore disposal. It also lists the items which are considered hazardous wastes. Very few items may be disposed of at sea anymore.
- When in doubt, check with your supervisor before disposing of any hazardous material. Severe penalties and fines can be imposed on ships for improper disposal of hazardous materials. In some cases, NJP or courts martial can result from hazardous materials incidents.

# H. HAZARDOUS MATERIAL SPILLS

- The workcenter responsible can normally clean up small spills of hazardous materials using the precautions provided in the MSDS. Small spills are generally less that five gallons of low toxicity material.
  - a. A example of a small spill is knocking over a can of floor wax and spilling a quart of material. There is no fire hazard and the material is not very toxic. The user could clean up by the spill with paper toweling or a mop after consulting the MSDS.
  - b. Even a small spill of a hazardous material may require containerizing of the residue and cleaning materials for shore disposal. <u>Alwavs report all</u> <u>spills to your supervisor.</u>
    - You must be careful handling spilled material because there is a greater chance of skin and eye contact and inhalation of gases or vapors.
    - (2) Protective equipment which may not be necessary for handling the material may be required to clean-up the spill. Your supervisor will advise you on the equipment you need.
- Larger spills of hazardous materials may threaten the safety of the ship, the environment or injure personnel. In such cases all personnel should evacuate the area immediately and <u>report the spill</u> to your supervisor, DC Central, the CDO, or the OOD.
  - a. An example of a large spill would be dropping a pallet load of five gallon paint cans onto the deck while taking on stores. This would be a fire hazard, a threat to the waterway, and a personnel exposure hazard.
  - b. Damage control actions, such as calling away the fire party, may be necessary for a large spill.
  - c. Hazardous material spilled into navigable waters must be reported in accordance with OPNAVINST 5090.1A, the Environmental and Natural Resources Program Manual.

(1) Environmentally significant spills must be reported by OPREP-3.

- (2) An environmentally significant spill is one which has high press or public interest or is considered a catastrophic event.
- (3) Special rules also apply to spills which occur in navigable waters in foreign ports.
- 3. If the hazardous material spill is a threat to the ship or personnel, the CDO, OOD, DCA, or fire marshal will decide on a course of action.
  - a. Hazardous material spill response procedures are provided in OPNAVINST 5100.19B, Appendix B3-A.
  - b. The DCA must train all damage control personnel in hazardous material spill response and conduct one spill response drill per year.
  - c. The DCA or CDO will use standard damage control procedures, plus information from Material Safety Data Sheets in conducting the spill clean-up.
  - d. Spill clean-up kits are located in Repair Lockers (GIVE THE LOCATIONS OF YOUR SPILL KITS.)
    - These spill kits contain absorbent materials, protective equipment, labels, and other materials used by damage control personnel for a large spill.
    - (2) These kits are maintained by the DCA.

A SEPARATE LESSON GUIDE IS PROVIDED ON HAZARDOUS MATERIAL SPILL RESPONSE, WHICH INCLUDES A VIDEOTAPE.

#### SUMMARY:

Hazardous materials are required for us to do our job, but they can be hazardous to our health and the environment if improperly handled. Rules and regulations on hazardous materials handling, storage, and disposal have been implemented for your safety and the safety of the ship. You have the right to know safety and health information about hazardous materials, and you must be trained in their use. Careful handling, storage and disposal of hazardous materials is an all hands evolution.

FOR MORE INFORMATION CONSULT OPNAVINST 5100.19B CHAPTERS B3 AND C23, AS WELL AS NSTM, CHAPTER 670, NSTM, CHAPTER 593, AND OPNAVINST 5090.1A.

ADMINISTER 10 QUESTION QUIZ PROVIDED. REPRODUCE LOCALLY. QUIZ KEY IS PROVIDED. LOCALLY REPRODUCE COMMON MSDS FOR ITEM USED ON BOARD 'OUR SHIP. ENSURE EACH STUDENT GETS A COPY. THIS MSDS CAN BE FROM THE CD-ROM HMIS OR ANY MANUFACTURER.

1 and a second

# JUS MATERIALS PROGRAM QUIZ

/NAME: _____DIV: _____DATE: _____

## ACLE THE CORRECT ANSWER

1. The "Right-to-Know" law ensures every user of hazardous materials has:

- A. A Material Safety Data Sheet available for the item used.
- B. A proper label on the item.
- C. Training in safe handling of hazardous materials.
- D. Training in how to read an MSDS.
- E. All of the above.

2. HMTID is:

- A. Hazardous material turned in to stores.
- B. Hazardous material which cannot be reused.
- C. Always mixed in one barrel.
- D. Never labeled.
- E. None of the above.

3. Each command must have a ship's hazardous materials program instruction.

- A. True
- B. False

4. A Material Safety Data Sheet does not need to be available on the ship for common cleaners like floor wax and pine oil.

A. True

B. Faise

5. Your in-use hazardous materials kept in the work center cannot exceed:

- A. The amount you need for deployment.
- B. One-year's worth.
- C. Weekly working stock.
- D. Daily usage amounts.
- E. Monthly PMS requirements.

6. The maximum amount of flammable materials in flammables cabinets, per space, cannot exceed:

- A. 10 gallons.
- B. 30 gallons.
- C. The capacity of the cabinet.
- D. 60 gallons.
- E. 12 gallons.

7. The DCA must train damage control personnel in hazardous material spill response and conduct an annual drill.

- A. True
- B. False

8. To safely handle a hazardous material during PMS, you must wear the protective equipment listed:

- A. On every hazardous material label.
- B. On the Maintenance Requirement Card (MRC).
- C. In the OPNAVINST 5100.19B.
- D. On the shipping box.
- E. None of the above.

9. All empty hazardous material containers may be thrown in the dumpster.

- A. True
- B. False
- 10. The ship needs to label hazardous materials if:
  - A. The hazard label was on the shipping box and inner containers had no hazard labels.
  - B. The material is put into an unlabeled container.
  - C. The label is damaged or destroyed.
  - D. A hazard warning was not included on the label.
  - E. All of the above.

# HAZARDOUS MATERIAL QUIZ KEY

I

)

E
 B
 A
 B
 C
 B
 A
 B
 B
 B
 B
 B
 B
 B
 B
 B
 B
 B
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C
 C