Monthly R&D Status Reports and Quarterly Technical Reports

3rd Quarter Calendar Year 1991

Submitted by:

Dr. Richard Estrada
BBN Systems and Technologies
10 Moulton St.
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Submitted to:

DARPA/ISTO
Attn: LtCol Stephen E. Cross
Contracts Management Office.
Virginia Square Plaza
3701 No. Fairfax Drive - 7th Fl.
Arlington, VA 22203-1714

Defense Technical Information Center
Cameron Station
Attn: DTIC-FDAC
Alexandria, VA 22304-6145

DARPA/ISTO
Attn: Lou Kallis
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The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.
11 July IPR Agenda

- TRANSCOM Update (Ragler, McCormack)
- PACOM Refinement Conference Report (Snow, Wilson) (10)
- Build 2 Status (Estrada) (5)
- Build 2 Testing, and Documentation Status (Mosley) (30)
- Build 3 Approach and Overview (Estrada) (5)
- Build 3 Design (Ton, Tiffany, Berliner) (50)
- A Brief Overview of the DART Fielding Effort (estada) (10)
- Management, Financial Status, Schedule (Estrada) (10)
PACOM REFINEMENT CONFERENCE

- ESTIMATE 40 ATTENDEES RECEIVED DART TRAINING OR DEMONSTRATIONS
- TRAINING/DEMOS FOCUSED ON TPFDD EDITOR
- CONFEREES USED DART TO:
  - RETRIEVE SPECIFIC REQUIREMENTS
  - BUILD TAILORED FORCE MODULES
  - ADJUST MVT RQMTS TO MEET OBJECTIVES
  - COMPARE MVT RQMTS AGAINST CAPABILITIES
- CONFERENCE SHOWED DART CAPABLE OF MULTIPLE USE ENVIRONMENT
- DART WELL RECEIVED BY PARTICIPANTS
  - APPROX 20 ATTENDEES SURVEYED ON DART USE AND FUTURE POTENTIAL
  - 100% RESPONDED FAVORABLY
PACOM REFINEMENT CONFERENCE

DOWNLOAD FROM JOVES TO DART

RETRIEVE ROMTS

BUILD FMS / INPUT CAPABILITIES

ARMSFM

NAVY FM

USAF FM

USMC FM

TOTAL FORCES FM

EVALUATE ADJUST REPLAN

CHANGE JOVES DATABASE

NON ROUTINE USES:

LOGICAL ERROR CHECKING

MAP DISPLAY
- INVALID GEOCODES DETECTED
- INVALID TRANSPORTATION MODE DETECTED

TRANSPORTATION MODE MODIFICATIONS

PORT & ROUTING MODIFICATIONS

DATE ADJUSTMENTS

INVALID UNIT SOURCING

RESERVE COMPONENT / TYPE UNIT QUERIES

SRA CORPORATION
DART FUNCTIONS USED
BY ATTENDEES

<table>
<thead>
<tr>
<th>Function</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>TPFDD OPTION</td>
<td>78%</td>
</tr>
<tr>
<td>LOAD TPFDD INTO DART</td>
<td>89%</td>
</tr>
<tr>
<td>REPORTS OPTION</td>
<td>67%</td>
</tr>
<tr>
<td>TPFDD EDITOR</td>
<td>67%</td>
</tr>
<tr>
<td>TARGET TPFDD -&gt; BOX</td>
<td></td>
</tr>
<tr>
<td>MAP (WORLD DISPLAY)</td>
<td></td>
</tr>
<tr>
<td>FM OPERATIONS</td>
<td></td>
</tr>
<tr>
<td>EDITOR (TPFDD CHART)</td>
<td></td>
</tr>
<tr>
<td>SELECT (RETRIEVAL)</td>
<td></td>
</tr>
<tr>
<td>UPDATE</td>
<td></td>
</tr>
<tr>
<td>VIEW (QUERY FILES)</td>
<td></td>
</tr>
</tbody>
</table>
DART'S MOST USEFUL FUNCTIONS
IDENTIFIED BY ATTENDEES

NUMBER OF RESPONDENTS

0 1 2 3 4 5 6 7 8 9

FUNCTION

Legend
TPFDD OPTION
LOAD TPFDD INTO DART
REPORTS OPTION
TPFDD EDITOR
TARGET TPFDD -> BOX
MAP (WORLD DISPLAY)
FM OPERATIONS
EDITOR (TPFDD CHART)
SELECT (RETRIEVAL)
UPDATE
VIEW (QUERY FILES)
RECOMMENDED DART ENHANCEMENTS

NUMBER OF RESPONDENTS

ENHANCEMENT

Legend
- NAME/STORE SQL QUERY
- FASTER GRAPHIC PRINT
- IMPROVE MENU DISPLAY
- INCREASE "WHAT IF"
- ADD ACCESS TO SORTS
- ADD MED PLANNING MOD
- ENHANCE FM OPERATION
- MOVE/MANIPULATE REC
- IMPROVE SORTING
- TABULAR DATA/HRDCOPY
- IMPROVE MAP DISPLAYS
Excerpts from TPFDD Refinement Conference User Comments:

- CONUS on Geoloc query menus
- New data fields (e.g., CRD)
- Show delta between FM capability and loads
- Detect Invalidated collections and FMs
- Input help
- Animate movements on map
Build 2 Status

- Build 2 is completed and has been tested
- Numerous IR's remain to be resolved
- A release 2.1 is planned to be completed and tested by 26 July to go to Beta sites (MTMC and LANTCOM)
- Non-critical IRs will be fixed in Build 3
- SCP's will be considered for Build 3.1
Build 2 Lessons Learned

- Build 2 DART analysis enhancements required tearing entire software module apart and putting it back together
  - new user interface
  - new data representation
  - integration of latest version of its graphics package

- Hard Requirement to maintain all Build 1 functionality

- Time to complete Build 2 dictated by need to field DART by July

- RESULT: Not all DART software completed by the beginning of testing and shortfalls were distributed throughout the module, consequently only limited testing could be completed until all software was integrated

- CHANGES IN THE APPROACH FOR BUILD 3
  - More conservative goals
  - Prioritization of enhancements
  - Enhancements are largely independent of one another
DART

IN PROGRESS REVIEW
11 JULY 1991

SYSTEMS RESEARCH AND APPLICATIONS CORPORATION
DART
INTRODUCTION

- USERS MANUAL
- TRAINING - PACOM REFINEMENT CONFERENCE
- TESTING
TESTING

- Schedule
- Multi-User
- IRs/CPs
- IR Regression
- DART and In-House RAPIDSIM Compare
- Conclusions/Recommendations
TESTING SCHEDULE

- **WEEK 1** (3 - 7 JUNE)
  - TPFDD EDITOR FUNCTIONS

- **WEEK 2** (10 - 15 JUNE)
  - REGRESSION TEST TE AND FM GRAPH
  - DOWNLOAD/UPLOAD
  - FAST
  - REPORTS

- **WEEK 3** (17 - 21 JUNE)
  - INFORMAL TESTING/PROGRAMMER ASSISTANCE
  - SUPPORTING REFINEMENT CONFERENCE
TESTING SCHEDULE

- WEEK 4  (24 - 27 JUNE)
  - RAPIDSIM FUNCTIONS
    - RAPIDSIM FUNCTIONS
    - MULTI-USER TEST
    - COMPARE WITH IN-HOUSE RAPIDSIM

- WEEK 5  (1 - 3 JULY)
  - FINISH IN-HOUSE COMPARE
  - WRAP UP
## MULTI-USER TEST

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<thead>
<tr>
<th>USER 1</th>
<th>TE FUNCTIONS</th>
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<td>(SUSAN)</td>
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<table>
<thead>
<tr>
<th>USER 2</th>
<th>REGRESSION TEST IRs</th>
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<tr>
<td>(W.T.)</td>
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<table>
<thead>
<tr>
<th>USER 3</th>
<th>ANALYSIS AND UTILITIES FUNCTIONS</th>
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<tr>
<td>(TAMMY)</td>
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<table>
<thead>
<tr>
<th>USER 4</th>
<th>RAPIDSIM AND DART MAP FUNCTIONS</th>
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<tr>
<td>(JIM)</td>
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<table>
<thead>
<tr>
<th>USER 5</th>
<th>CREATE/LOAD/DELETE TPFDDs</th>
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<tbody>
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<td>(JOHN)</td>
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# MULTI-USER IRs

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<td>42</td>
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<td>NO ESCAPE OPTION</td>
<td>41</td>
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<td>EDIT SITUATION</td>
<td>39</td>
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<tr>
<td>FM MODEL RUNS</td>
<td>40</td>
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<tr>
<td>GRAPHS</td>
<td>23,24,35,36,37,38</td>
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<tr>
<td>EDIT SHIP ALLOCATIONS</td>
<td>21</td>
</tr>
<tr>
<td>TE</td>
<td>19,22,25,26,27,28</td>
</tr>
<tr>
<td>F11 REPORTS</td>
<td>29</td>
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<tr>
<td>EDIT CHARACTERISTICS</td>
<td>20</td>
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<tr>
<td>ANALYSIS</td>
<td>32,34</td>
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<tr>
<td>DART MAP</td>
<td>30,31</td>
</tr>
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</table>
RESULTS OF TESTING
(IRs)

11 July 1991
DART
BUILD II

- TPFDD SUMMARY
  - UPDATE SUMMARY W/ "NIL" (# 3)
  - SELECT TPFDD TIMEOUT (# 4)
  - GET REQUIREMENTS DELAY (# 9)
  - ERRONEOUS POL RQMTS (# 63)

- SITUATION
  - SHIP ALLOCATION INPUT (# 1)
  - "MEN AT WORK" ON ROUTES (# 13)
  - SCENARIO DATA FILE (# 43)
  - SHIP CARGO TYPE DISTRIBUTION (# 53)
  - SLOW SHIP EDITS (# 57)

- MODEL
  - EDIT MODEL SETTINGS W/O TPFDD (# 7)
  - RAPIDSIM ABORT ON CARGO CAPABILITY (# 11)
  - SQ FT CAPABILITY NOT AVAIL (# 64)
  - REQS AND CHANNEL RPTS NOT AVAIL (# 51)
  - EDIT MODEL SETTINGS AFTER IMPORT RAPIDSIM RESULTS (# 61)
- ADD GEOLOC TO MAP (# 2)
- EXPRESS RETRIEVAL FOR POE MISSING (# 8)
- MAP ZOOM ERROR (# 12)
- PAS ERRORS W/ ORACLE (# 17)
- SQ FT VALUES FOR SPLIT SHIP PERSONNEL (# 18)
- POD PRIORITY & PRIORITY ADD-ON MISSING (# 52)
- DELETE TARGET TPFDD (# 59)
- TUCHA OUTSIZED AND NAT VALUES (# 60)
- ERRONEOUS POL RQMTS (# 62)
DART BUILD II

- WHITE SPACE ERROR ( # 14)
- CHANNELS NOT AVAIL ( # 16)
- "ZOOM" ON MENU BAR ( # 45)
- UNABLE TO SCROLL BACK ( # 5)
- MR SUMMARY PROBLEMS ( # 10)
- F11 REPORT FORMAT ERRORS ( # 15)
- NO CINS/PINS ON F11S ( # 16)
- ADD TEXT TO SCATTER GRAPH (#6)
- NO RESULTS CAUSES CRASH (#44)
RESULTS OF TESTING
(MISCELLANEOUS)

- UNIT ID FIELD IN SCENARIO FILE ( # 54)
- REQUIRE.DAT FILE FORMAT ( # 56)
- CAPS LOCK HANGUP ( # 58)
# INCIDENT REPORTS

- **INCOMPLETE FUNCTIONALITY**  (14 TOTAL)  IR NUMBER

<p>| | |</p>
<table>
<thead>
<tr>
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<tr>
<td><strong>RAPIDSIM REPORTS</strong></td>
<td>51</td>
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<tr>
<td><strong>ANALYSIS</strong></td>
<td>37</td>
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<tr>
<td><strong>DART MAP</strong></td>
<td>31,45</td>
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<tr>
<td><strong>F11 REPORTS</strong></td>
<td>5</td>
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<tr>
<td><strong>TIMING</strong></td>
<td>9,26,57</td>
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<tr>
<td><strong>TE</strong></td>
<td>52,25,27,22,28</td>
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<tr>
<td><strong>CAPACITY vs REQ GRAPH</strong></td>
<td>23</td>
</tr>
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</table>

- **ERROR/ABORT CONDITION**  (19 TOTAL)

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<table>
<thead>
<tr>
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<td><strong>EDIT MODEL SETTINGS</strong></td>
<td>7,61</td>
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<tr>
<td><strong>CAPS LOCK ERROR</strong></td>
<td>58</td>
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<tr>
<td><strong>ANALYSIS</strong></td>
<td>44,47</td>
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<tr>
<td><strong>UTILITIES RETRIEVE SCREEN</strong></td>
<td>42</td>
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<tr>
<td><strong>NO ESCAPE OPTION</strong></td>
<td>41</td>
</tr>
<tr>
<td><strong>CAPABILITY vs REQUIREMENT</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>TE</strong></td>
<td>17,59</td>
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<td><strong>EDIT SITUATION</strong></td>
<td>39</td>
</tr>
<tr>
<td><strong>RUN RAPIDSIM</strong></td>
<td>11</td>
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<tr>
<td><strong>GRAPHS</strong></td>
<td>6,32,37</td>
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<td><strong>DART MAP</strong></td>
<td>2,12,14</td>
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<tr>
<td><strong>SELECT TPFDD</strong></td>
<td>4</td>
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<tr>
<td><strong>SQ FEET CAPABILITY IN RAPIDSIM</strong></td>
<td>64</td>
</tr>
</tbody>
</table>
INCIDENT REPORTS (Cont)

- ERRONEOUS RESULTS  (20 TOTAL)  
  - .DAT AND .LST FIELDS  
  - EDIT CHARACTERISTICS  
  - FM MODEL RUNS  
  - GRAPHS  
  - EDIT SHIP ALLOCATIONS  
  - UPDATE SUMMARY  
  - VIEW TUCHA  
  - TE  
  - MR SUMMARY  
  - DART MAP  
  - F11 REPORTS  
  - ERRONEOUS POL  

- IR NUMBERS  
  - 56,55,54  
  - 20,43,53  
  - 40  
  - 35,36,38  
  - 1,21  
  - 3  
  - 60  
  - 8,18,19  
  - 10  
  - 13,30  
  - 15,29  
  - 62,63  

- BUILD II FUNCTIONS MISSING  IR #16  
  - DISPLAY DESIGNATED CHANNELS  
  - NON UNIT RECORDS ON F11 REPORTS
DART BUILD II

INHOUSE vs DART RAPIDSIM COMPARISON TESTING

- RESULTS ARE CLOSE
- HAMPERED BY
  - INTERMEDIATE FILE FORMAT & AVAILABILITY
  - SLOW, USER UNFRIENDLY DATA INPUT
- ERRORS NOTED
  - POL RQMTS CONTAIN WATER
  - VARIATIONS AMONG COMMODITIES
  - SHIP TYPE CAPACITIES NOT EDITABLE
## DART vs Inhouse RAPIDSIM

<table>
<thead>
<tr>
<th>Requirements Analysis</th>
<th>Inhouse Rqmts</th>
<th>DART Rqmts</th>
<th>Difference Absolute</th>
<th>Difference Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STONS</td>
<td>STONS</td>
<td>STONS</td>
<td></td>
</tr>
<tr>
<td>Airborne</td>
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<td>0</td>
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</tr>
<tr>
<td>Armor</td>
<td>24,601</td>
<td>24,601</td>
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<td>0.00%</td>
</tr>
<tr>
<td>Infantry</td>
<td>42,457</td>
<td>42,457</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Mechanized</td>
<td>174,682</td>
<td>174,682</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Air Mobile</td>
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<tr>
<td>Combat Support</td>
<td>111,036</td>
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<tr>
<td>CS Support</td>
<td>222,937</td>
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<td>Air Force UE</td>
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<td>Ammunition</td>
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<td>412,168</td>
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## Delivery Analysis

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<tr>
<th>Delivery Analysis</th>
<th>Inhouse Rqmts</th>
<th>Inhouse Delivered</th>
<th>Difference Absolute</th>
<th>Difference Per Cent</th>
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<tr>
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<td>STONS</td>
<td>STONS</td>
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<tr>
<td>Airborne</td>
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<tr>
<td>Resupply</td>
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<td>Navy U.E.</td>
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<tr>
<td>Total U.E.</td>
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<td>POL</td>
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<tr>
<td>PAX</td>
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</tr>
</tbody>
</table>
CONCLUSIONS

- INFORMAL TESTING DURING INTEGRATION
- OPERATIONAL TESTING DURING 5027 REFINEMENT
- BUILD II FUNCTIONS MISSING
- DART ANALYSIS USER INTERFACE NEEDS IMPROVEMENTS
- SYSTEM IS USEABLE
RECOMMENDATIONS

- MAKE NECESSARY REPAIRS
- DELAY NEW FUNCTIONALITY
- REGRESSION TEST REPAIRS
- IMPROVE COMMUNICATIONS FOR PERIODIC
  INFORMAL TESTING DURING DEVELOPMENT
DART

PLANNED ACTIVITY JULY

- PUBLISH USERS MANUAL
- PUBLISH TRAINING MANUAL
- PUBLISH TEST PLAN AND REPORT
- REGRESSION TEST BUILD 2 REPAIRS
- RE BETA MTMC AND LANTCOM
- DRAFT SYSTEM ADMINISTRATION MANUAL
- PREPARE FOR PHASE THREE ACTIVITY
USERS MANUAL

- PRODUCED 2 INTERIM MANUALS
  - LANTCOM (BASED ON BUILD 1.H)
  - REFINEMENT CONFERENCE (DRAFT, BASED ON BUILD 2)

- BUILD 2 USERS MANUAL
  - 90% COMPLETE BASED ON CURRENT SYSTEM
  - NEED ABILITY TO MACIFY ANY DART SCREEN
  - NEED COMPLETE INFORMATION ON PENDING SYSTEMS CHANGES 2 WEEKS PRIOR TO DELIVERY OF MANUAL
Build 3
Approach and Overview

- Build 3 as it was visualized on 23 May
- Build 3 as it visualized now
- Build 3 Prioritization and Approach
- Build 3 Milestones
Build 3
Approach and Overview

• Build 3 as it was visualized on 23 May
• Build 3 as it visualized now
• Build 3 Prioritization and Approach
• Build 3 Milestones
Build 3 requirements
(from 23 May IPR)

- Create/Edit Level 4 Cargo Detail
- Completion of Expanded Query Capability
- Fixing IRs
- Integration of SITAP into DART
- Integration of PFE into current build DART
- Small Enhancements to Force Module Management
- Incorporation of lessons learned (SCP) from Refinement conference
- Incorporate SCPs relating DART/FAST integration
Build 3 requirements
As Visualized Now

- Create/Edit Level 4 Cargo Detail (3.1)
- Completion of Expanded Query Capability (3.2) (expanded scope)
- Fixing IRs (3.3)
- Update RapidSim Capability (3.4) (new requirement)
- Integration of SITAP into DART (3.5) (expanded scope)
- Integration of PFE into current build DART (3.6)
- Small Enhancements to Force Module Management (3.7)
- TPFDD editor enhancements from Conf. (3.8) (expanded scope)
- Integration into GTN LDBD (3.9) (new requirement)
- Transaction Capability for DART (3.10) (new requirement)
- DART Multi-user capability specification (3.11) (new requirement)
- Configuration Management (3.12) (new funded requirement)
- System Documentation (3.13) (new funded requirement)
Build 3 Approach and Prioritization

- Give highest priority to fixing bugs and other problems that interact with fielding DART
- Take conservative approach to all new enhancements
- Maintain fallback positions on high risk enhancements
- Prioritize all enhancements and focus initially on highest priority items
- Put all individuals on time budgets to insure funds are left for final integration and testing
Build 3 Milestones

15 June - Development begins
13 September - complete integration
16 September - Begin Acceptance Testing
28 September - Complete Acceptance Testing
28 September - Build 3 Turned Over to TRANSCOM
Build 2.1:
IR Resolution from Build 2

- Incomplete Functionality (14 Total)
  - 9 to be fixed or resolved in Build 2.1
  - 4 under investigation
  - 1 deferred to Build 3

- Error/Abort Condition (20 Total)
  - 11 to be fixed or resolved in Build 2.1
  - 7 under investigation
  - 2 deferred to Build 3

- Erroneous results (24 Total)
  - 12 to be fixed or resolved in Build 2.1
  - 11 under investigation
  - 1 deferred to Build 3

- Build 2 Functions Missing (2 Total)
  - 1 under investigation
  - 1 deferred to Build 3
Title: Create/Edit Level 4 Cargo (3.1)

Approach:
- User Interface
- Editing Functions
- Creation Functions
- Automatic Roll-up

Status: significant effort, medium priority
Build 3 Design (II)

Title: Expand Query Capability (3.2)

Approach:
- Collection Sorting
- Stored Queries
- Query Editing
- Routine Retrievals
- F11 Reports ?????

Status: significant effort, high priority (stored queries 85% complete)
Title: Fixing Bugs (3.3)

Approach: Currently have defined bugs to be fixed from existing IR list

Status: Critical IRs will be fixed in build 2.1 by end of July
Build 3 Design (IV)

Title: Update RapidSim Level Capability (3.4)
Approach: Additional reports/graphs showing asset usage
Begin implementation 15 Aug if resources are available.
Title: Generic Pre & Post Processing for Transportation Models (3.5)

Approach:

- Concentrate on SITAP integration.
- Use generic capabilities built into the current DART interface where applicable.
- Use current DART analysis display capabilities where possible.
- Add generic capabilities to support SITAP where possible.
- Add SITAP specific functions as required.

Status:

- Significant effort, High priority, High Risk
- Initial interface should be viewed as a prototype version
Title: Transportation Analysis Through PFE (3.6)

Approach:

- Augment DART movement requirements to support PFE.
- Modify PFE graphs to current DART version.
- Modify PFE situation to current DART version. (Most of the work)
- Modify PFE graphical Force Module / Movement Requirement display to current DART version.
- Modify PFE scheduler to use more than two priority levels, e.g., 10 or 100. (Optional, if resources are available)

Status:

- Moderate Effort, High priority
Tenative Fielding Schedule

- 5 July CINC Initiative Funds for DART fielding approved
- 5 August CIF MIPR reach DARPA
- 15 August DART Fielding effort begins
- 15 August Hardware Ordered
- 20 August -5 September Site Surveys
- 15 August -30 September preparation for centralized training
- 30 September Build 3 complete
- 30 September - 15 October Centralized Training
- 15 October Hardware arrives and Build 3 is installed
- 20 October Fielding at first site
- two teams field DART at 6 to 8 sites, two to three weeks per site
- 15 January DART fielded at all sites
## Incident Report Regression Testing

<table>
<thead>
<tr>
<th>IR #</th>
<th>Title</th>
<th>Status</th>
<th>Remarks</th>
</tr>
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<tbody>
<tr>
<td>10</td>
<td>RAPIDSIM Air PAX Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Scenario File Save Error</td>
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<td>25</td>
<td>Save SETUP Abort</td>
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<td>33</td>
<td>Movement Rqmts Output</td>
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<tr>
<td>34</td>
<td>RAPIDSIM Invalid FMID</td>
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<tr>
<td>35</td>
<td>Changes to Display Map</td>
<td>Partial</td>
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<tr>
<td>39</td>
<td>Menu Selection Convention</td>
<td>Still Exists</td>
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<tr>
<td>41</td>
<td>Erratic RAPIDSIM Output Report</td>
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<tr>
<td>42</td>
<td>RAPIDSIM Data Conflict</td>
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<td>43</td>
<td>ORACLE Hang on Power Loss</td>
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<td>44</td>
<td>Zero Ship by Port Error</td>
<td>Fixed</td>
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<tr>
<td>45</td>
<td>Mixed Report Formats</td>
<td>Fixed</td>
<td></td>
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<tr>
<td>46</td>
<td>Open TPFDD Editor Effects</td>
<td>Fixed</td>
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<td>53</td>
<td>TPFDD Name Table Update</td>
<td>Fixed</td>
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<td>54</td>
<td>Missing Concept of Ops Data</td>
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<td>55</td>
<td>Errors following TPFDD Upload</td>
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<td>56</td>
<td>Renumber CIN/PIN Error</td>
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<tr>
<td>57</td>
<td>Yellow ULN Color Change</td>
<td>Fixed</td>
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<td>58</td>
<td>Offset Setup Menu</td>
<td>Fixed</td>
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<td>59</td>
<td>Utilities Menu Error</td>
<td>Fixed</td>
<td>O.B.E.</td>
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<td>60</td>
<td>RAPIDSIM Access Error</td>
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<tr>
<td>61</td>
<td>Combination Parameters Failure</td>
<td>Fixed</td>
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<tr>
<td>62</td>
<td>Force Module Display Error</td>
<td>Still Exists</td>
<td>POL &amp; Sq Feet Errors</td>
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<tr>
<td>63</td>
<td>SRF Sort Sequence Error</td>
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<td>64</td>
<td>F11D Reports Errors</td>
<td>Still Exists</td>
<td>No Non-unit records</td>
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<tr>
<td>66</td>
<td>Zoom-Out Error</td>
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<tr>
<td>67</td>
<td>Unnecessary RAPIDSIM Error Msgs</td>
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<td>68</td>
<td>Force Module Description Records</td>
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<tr>
<td>73</td>
<td>RAPIDSIM Floating Point Exception</td>
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<td>74</td>
<td>DART/Inhouse RAPIDSIM Compare</td>
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<td>75</td>
<td>RAPIDSIM POL Comparison Error</td>
<td>Still Exists</td>
<td>Problem with Water</td>
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<td>76</td>
<td>RAPIDSIM Parent Records Errors</td>
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<td>77</td>
<td>RAPIDSIM Prov Org Code Error</td>
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<td>79</td>
<td>In-Place Force Retrieval</td>
<td>Fixed</td>
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<td>80</td>
<td>On-Call Force Visibility</td>
<td>Fixed</td>
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<td>TPSN Field</td>
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<td>82</td>
<td>MTon Values</td>
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<td>90</td>
<td>Inaccurate Total Load Figures</td>
<td>Still Exists</td>
<td>POL &amp; Sq Feet Errors</td>
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<td>92</td>
<td>CIN/PIN Retrievals</td>
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<td>93</td>
<td>Classification Error</td>
<td>Fixed</td>
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<td>PIN Service Code Menu</td>
<td>Fixed</td>
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<td>98</td>
<td>ULN Retrieval Errors</td>
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<td>99</td>
<td>C-Day Offset Errors</td>
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<td>100</td>
<td>Write Error Continuation</td>
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<tr>
<td>102</td>
<td>Multiple &quot;And&quot; Retrievals</td>
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<td>103</td>
<td>Username Abort Error</td>
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<td>Transport Color Code Error</td>
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<td>IncId</td>
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<td>105</td>
<td>CIN Copy Error</td>
<td>Fixed</td>
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<tr>
<td>107</td>
<td>Security Class Entry</td>
<td>Fixed</td>
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</tr>
<tr>
<td>108</td>
<td>TPFDD Editor Exit Option</td>
<td>Fixed</td>
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<tr>
<td>109</td>
<td>TPFDD Stop Option</td>
<td>Fixed</td>
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<td>110</td>
<td>DART Version Entry</td>
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<td>111</td>
<td>RAPIDSIM Results Legend</td>
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<tr>
<td>112</td>
<td>In-List Wild Card Retrievals</td>
<td>Should be SCP</td>
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<tr>
<td>113</td>
<td>F11D/E Report Errors</td>
<td>Still Exists</td>
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<tr>
<td>114</td>
<td>FM Compare Numbers Overlap</td>
<td>Fixed</td>
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<td>115</td>
<td>Security Class &quot;NIL&quot; Error</td>
<td>Fixed</td>
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<tr>
<td>119</td>
<td>TPFDD Data Not Shown</td>
<td>Partial</td>
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<td>120</td>
<td>RAPIDSIM Error Number Tracking</td>
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<td>121</td>
<td>RAPIDSIM Error Listing Display</td>
<td>Fixed</td>
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<tr>
<td>122</td>
<td>Floating Point Lat/Long</td>
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<tr>
<td>123</td>
<td>Sq Ft Calculation Error</td>
<td>Still Exists</td>
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<td>124</td>
<td>FRN Changes</td>
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<tr>
<td>125</td>
<td>Graphics Printing Problems</td>
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<td>126</td>
<td>Summary Line Colors</td>
<td>Fixed</td>
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<tr>
<td>127</td>
<td>FM Display Scrolling Error</td>
<td>Fixed</td>
<td></td>
</tr>
</tbody>
</table>
Title: Force Module Management (3.7)

Approach:
- Expanded and compressed display (more specification required)
- FM Description/Title Editing
- FM Relationship Display (more specification required)
- Change Cargo Options

Status: Moderate effort, mixed priorities
Title: TPFDD Editor Enhancements (3.8)

Approach:
- User Data Administration (SQL Forms)
- Retrieve on Geoloc Combinations (more spec needed)
- Complete ULN information (more spec needed)
- Intelligent Editing

Status: moderate effort, medium priority
Title: Workplan for DART integration into GTN LDBD

Approach: Consult and write up results

Status: moderate effort, low priority, begin work 15 Aug if resources available
Title: Transaction Interaction with JOPES (3.10)

Approach:
- Concentrate on providing upload of TPFDD changes made by DART
- Obtain JOPES transaction format specification
- Modify/reimplement existing tpdump functionality
- Understand ramifications for Update Control
- Develop support code and scripts

Status: significant effort, high priority
Title: Workplan for DART Multi-User Support

Approach: Continue recurring discussion and analysis of the DART Multi-user problem, write up approach

Status: moderate effort, low priority, work to begin August 15 if possible
Overview of the DART Fielding Effort

- Top Level Schedule
- Critical Components of the Fielding Effort
Critical Components of the DART Fielding Effort

- Rapid acquisition of hardware for each selected site and rapid deployment based on MTMC and LANTCOM experience. One to two weeks of on-site training included.

- Centralized Training at SRA, multiple courses provided depending on size of DART community.

- Installation of DART at additional sites and upgrade assistance and training for DART at existing sites provided at site's initiative and cost.

- User Support Hotline at TRANSCOM based on MTMC/LANTCOM experience and remote secure call up of sites for monitoring and assistance.

- A DART user group and system engineering to address user problems.

- Software maintenance to fix bugs and architectural maintenance to keep DART from stagnating.

- Configuration Management centered at USTRANSCOM.

- System Documentation in addition to user documentation.
Management Report

- Financial Status
- Project Schedule between now and 31 August
DART Phase II
Contract No. MDA972-90-C-0074
Actual v Forecast of Expenditures

Thousands
2700
2250
1800
1350
900
450
0

Jan Feb Mar Apr May Jun Jul Aug Sept

- Actual
- Forecast
DART Program Schedule
25 May to 31 August

- 17 July to 26 July  Global War Game Support
- 24 July Build 2.1 begin testing
- 26 July Build 2.1 complete testing
- 29 July to 2 August Distribute DART to Beta sites
- 1 August PMR
- 15 July to 15 August - continued DART fielding planning
- 15 August DART fielding effort begins
28 August IPR Agenda

- Action Items (Ragler)
- TRANSCOM Update (Ragler)
- Future Roadmap (Rawcliffe)
- Distribution Plan (Ragler)
- Configuration Management (Ragler)
- Build 2.1 Status (Estrada)
- Build 2.1 Test Results (Sport)
- Build 3 Status (Ton, Berliner, Tiffany)
- Build 3 Training, Testing, and Documentation (Mosley)
- DART - Fast integration (CSC)
- Floor Business (Rawcliffe)
- Recap Open Issues (Rawcliffe)
Build 2.1 Overview

- Although Build 2 as completed and tested is usable and has no "show stoppers", it contained a large number of unresolved Incident Reports.

- Build 2.1 was defined to fix the major IRs.

- Software for Build 2.1 was completed and internally tested by August.

- SRA acceptance testing performed on August 6,7.

- Development and testing successfully completed.
BUILD 2.1 TESTING
6-7 AUGUST '91

- SRA WITH BBN COORDINATION
- REGRESSION TESTED BUILD II IRs
- NO ABORTS
- TWO MINOR ERRORS -- IMMEDIATELY ADDRESSED
- MINI ANALYSIS REPORT SUBMITTED TO BBN
BUILD 2.1 TESTING
6-7 AUGUST '91

- REGRESSION TEST RESULTS
  - 64 IRs (SOME WITH MULTIPLE PARTS)
    - 41 CORRECTED/RESOLVED
    - 24 UNCHANGED
    - 2 IMPROVEMENTS
    - 4 COULD NOT DUPLICATE
# Build 3 Requirements

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>PRIORITY</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Create/Edit Level 4 Cargo Detail</td>
<td>Medium</td>
<td>not started</td>
</tr>
<tr>
<td>• Expanded Query Capability</td>
<td>High</td>
<td>partially completed</td>
</tr>
<tr>
<td>• Fixing IRs</td>
<td>High</td>
<td>in progress</td>
</tr>
<tr>
<td>• Integration of SITAP into DART</td>
<td>High</td>
<td>demo today</td>
</tr>
<tr>
<td>• Integration of PFE into current build DART</td>
<td>High</td>
<td>will be completed</td>
</tr>
<tr>
<td>• Small Enhancements to Force Module Management</td>
<td>Mixed</td>
<td>not started</td>
</tr>
<tr>
<td>• TPFDD editor enhancements from Conf.</td>
<td>Medium</td>
<td>selected items done</td>
</tr>
<tr>
<td>• Integration into GTN LDBD</td>
<td>Low</td>
<td>not started</td>
</tr>
<tr>
<td>• Transaction Capability for DART</td>
<td>High</td>
<td>in progress</td>
</tr>
<tr>
<td>• DART Multi-user capability specification</td>
<td>Low</td>
<td>not started</td>
</tr>
<tr>
<td>• Configuration Management</td>
<td>High</td>
<td>will be completed</td>
</tr>
<tr>
<td>• System Documentation</td>
<td>High</td>
<td>intense effort</td>
</tr>
</tbody>
</table>
SITAP

Approach:

- Use generic capabilities built into the current DART interface where applicable.
- Use current DART analysis display capabilities where possible.
- Add generic capabilities to support SITAP where possible.
- Add SITAP specific functions as required.

Status:

- Demonstration of preliminary version given this afternoon
- Initial interface should be viewed as a prototype version
PFE Integration

- Augment DART movement requirements to support PFE. (Complete)
- Modify PFE graphs to current DART version. (Possibly deferred)
- Modify PFE situation to current DART version. (Will be completed)
- Modify PFE graphical Force Module / Movement Requirement display to current DART version. (Will be completed)
- Modify PFE scheduler to use more than two priority levels, e.g., 10 or 100. (Deferred)
Transaction Processing
with JOPES - Status

- Concentrating on providing upload of TPFDD changes made by DART
- Writing transactions for FMIs, partial Unit records
- Need more:
  - transaction format specification
  - test data
  - confirmation of JOPES transaction dumping capability.

Status: significant effort, high priority
TRAINING

- SENIOR-OFFICER ORIENTATION
  - JCS-J6
  - JCS-J7 (PSD & CPD)
  - USTC J5
- USTC-J3/4 ORIENTATION
- RE-BETA MTMC
- DEVELOPED AUTOMATED SYSTEM BRIEFING
- PROTOTYPE SYSTEM VIDEO
TRAINING

- SENIOR-OFFICER ORIENTATION
  - JCS-J6
  - JCS-J7 (PSD & CPD)
  - USTC J5

- DEVELOPED AUTOMATED SYSTEM BRIEFING

- PROTOTYPE SYSTEM VIDEO
DOCUMENTATION

- USERS MANUAL
  - BUILD II VERSION DELIVERED 1 AUGUST
- SYSTEM ADMIN MANUAL
  - DRAFT TO MTMC (*LANTCOM*)
- TEST ANALYSIS REPORT
  - AWAITING DISTRIBUTION
- TRAINING MANUAL
  - OUT ON 29 AUGUST
IRs/SCPs

- IR/SCP DATA PROVIDED TO TC.J6
- NO NEW IRs
PROPOSED ACTIVITIES

- TESTING
- PREPARE AND EXECUTE BUILD III TEST
- TRAINING
- DELIVER TRAINING MANUAL BY 8/29
- USERS MANUAL
- RE-BETA LANTCOM
- PREPARE FOR PHASE III ($ AND TASKING)