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CRISIS CONFERENCING AND THE PUEBLO CASE

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INSTITUTE FOR DEFENSE ANALYSES
SYSTEMS EVALUATION DIVISION
400 Army-Navy Drive, Arlington, Virginia 22202

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ABSTRACT

The needs and potential uses of remote conferencing in a crisis environment are examined. An analysis of the Pueblo incident, based on the unclassified Pike Committee Hearings and Report, is used to illustrate the potentials of conferencing during a crisis. Unclassified paragraphs of the Defense Communications Agency (DCA) instructions on how to establish a conference with current equipment are discussed and analyzed. Some suggestions on how to overcome some of the difficulties in attaining a usable conferencing capability are included.

CONTENTS

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I. WHY CONFERENCING?

Remote conferencing is a means of communicating with three or more people at the same time. It can be accomplished by voice, direct teletype, or combinations of both.[1] Visual techniques may also be added (e.g., LDX, TV, dynamic writing and sketching devices).[2] Remote conferencing is fairly common in industry but is not generally practiced in the military world except at lower echelons and in special networks such as the non-secure Joint Chiefs of Staff Alert Net (JCSAN). The primary reason is that point-to-point communication, while less efficient in many situations, is more convenient and familiar to most users. Also, remote conferencing demands unique or unfamiliar procedures.

It is fairly obvious that a conference network allows the exchange and sharing of more information in a shorter time than a series of point-to-point conversations among the same number of people.[3] During the experiments conducted in support of IDA Study S-138, we compared the time to solution of the same problem by means of 12 people in a telephone conference and 12 individuals on a point-to-point call basis. In the remote conferencing case the problem was solved in 45 minutes with one conference call. In the point-to-point case the problem took between 2 to 3 hours and approximately 120 separate point-to-point calls.

The above experimental results have been independently confirmed by the work of Carzo and Yanouzas[4] who compared the decision times in what they termed "tight" and "loose" structures. Tight structures were the normal chain of command

organization in which the information was disseminated through the structure to the highest of three echelons and back down, point-to-point, to the lowest echelon. In the loose structure the information was conveyed to and from all the echelons in conference. The times to decision were almost twice as long in the tight structure which used point-to-point rather than conference modes of communication.

Crisis conferencing is, of course, a special case. The objectives are not only to attain the most vital and accurate information in the shortest time but also to have the greatest number of feasible options presented to the decision maker. The process also must include not only the probabilities of accuracy of the input but also the probable consequences of the action resulting from the decision. Each crisis is unique and most of the participants change from crisis to crisis. Thus, there is a very small "learning curve" effect, as noted in Carzo and Yanouzas experiments. In short, the differences between conference communication and point-to-point communication become magnified under crisis conditions.

Every major crisis has revealed the necessity for the highest echelons to have direct communication with the action level, a necessity which has brought about an argument regarding centralized versus decentralized command and control. The argument is really fallacious because one must have the capability of exercising both centralized as well as decentralized command and control depending on the situation at a given time. The dynamics of this problem are illustrated in Fig. 1. The horizontal axis is time divided arbitrarily into four phases: I, the peace or early tension phase; II, the potential warning phase; III, the exchange or action phase; and IV, the recovery phase. The lengths of time in each of these phases can vary from minutes (in a nuclear situation) to hours, days, or weeks in other types of crisis. The vertical axis is the level of command or decision level with the President at the top and the action levels at the bottom.

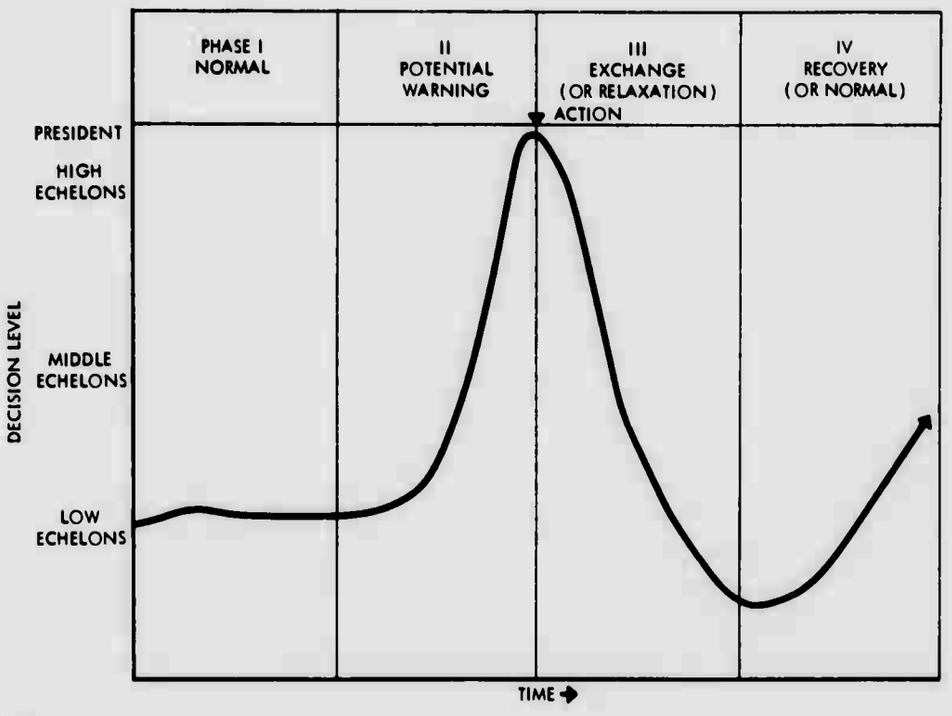

FIGURE 1. Centralization and Decentralization of Command

The line which runs across the figure, in this case, peaking at the end of Phase II, represents the level at which operational decisions are made. In Fig. 1 this line starts at the left at a fairly low level, meaning that in peacetime most operational decisions can be left to relatively low echelon commanders. Once it is realized that Phase II is taking place, then the level at which decisions must be made goes to higher levels. This illustrates the crisis phenomena of not leaving vital national policy in the hands of lower level decision makers. In fact, most crises require the decision level to be at the top, the President. It is during this period (Phase II) that the top demands communication with the bottom because of the necessity of time and accuracy.

Fortunately, the active command structure during most crises (short of a nuclear catastrophe) only includes a small portion of the total national command structure; therefore, the multiplicity of units as one goes down the command chain

is minimized. Only a small portion of the command chain becomes active during a crisis, although widely different parts of the command structure usually become active in each crisis.

Phases III and IV will vary as to the level at which decisions must be made depending on how the crisis is resolved. In a hypothetical nuclear case (depicted as an example in Fig. 1), the decision would have to revert to local control after the primary nuclear release decision was reached at the end of Phase II. Phase IV, if there could be a Phase IV in a nuclear case, represents an attempt to restore normal command decision levels which existed in Phase I.

Phase II of the process is the most critical, for during that phase the fateful decisions of war and peace must often be made in a painfully short time.*

In normal times, command and control are exercised through the chain of command. Communication between a high echelon and a low echelon proceeds serially through the intervening echelons as indicated in Fig. 2a. In time of emergency this procedure is too slow and is subject to misinterpretation. These shortcomings of the serial connection produce the phenomenon of "command jumping" illustrated in Fig. 2b. For example, during the Cuban Missile Crisis the Secretary of Defense demanded to talk directly to the commander of the destroyer which was about to intercept a Soviet controlled ship as it approached the quarantine line. The necessity for this direct conversation was not a lack of confidence in the destroyer commander, but rather that it was impossible for the commander to have knowledge of the exact state of current U.S.-Soviet negotiations, and the Secretary needed an immediate account of the Soviet actions and our counter actions.

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*The vital role that time plans in decision making is discussed by Lee S. Christie, et al., in Operations Research for Management, Vol. II, edited by Joseph F. McCloskey and John M. Coppinger, Baltimore, Johns Hopkins Press, 1956, pp. 488-493.[5]

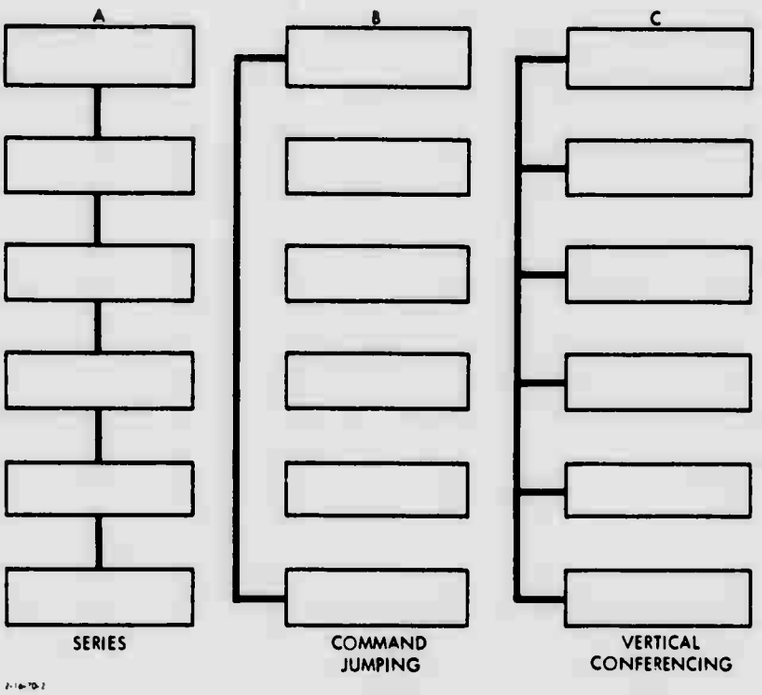

FIGURE 2. Operation Modes

In command jumping, communications bypass the intervening echelons. These echelons might remain uninformed of developments and often make contradictory reports to the higher echelons and give contradictory commands to lower echelons. Moreover, the information known only to these intervening commands does not get fed into the system. This also leads to confusion and can result in serious mistakes. Despite these drawbacks, in nearly every crisis the highest echelons initiate communication directly with selected units at low echelons and vice versa.

Command jumping, however, has a serious potential danger when one of the intervened echelons (being jumped) has vital information related to the conversation being held between the top and bottom echelons, or is not informed of what is transmitted. This undesirable feature of command jumping can be avoided by "vertical conferencing." In vertical conferencing, as shown in Fig. 2c, the high echelon can communicate with the

low echelon directly, and vice versa but the intervening echelons are provided a capability to listen and, if desirable, a capability to transmit into the network.*

Vertical conferences are only one form of the new interconnections demanded in crises. The usual forms of conferencing involve a commander and a group of his subordinates who are at the same command level, thus forming a "horizontal" conference. The few conferencing systems that now exist are generally used in the horizontal mode, but there are times when the vertical mode is also critical.

Perhaps an actual case will illustrate the necessity of both horizontal and vertical conferencing.

*Research Paper P-371, op. cit.,[3] extends this discussion into the use of satellites as one means of achieving vertical conferencing where the chain of command extends over wide geographic distances. Also it should be noted that vertical conferencing is not a conference among equals, but incorpoates a wide range of rank.

II. COMMUNICATIONS IN THE PUEBLO CASE

The Pueblo crisis illustrates the phenomenon of local decisions being elevated to the highest echelons depicted in Fig. 1. In this particular case the time axis in Phase II (potential warning) was in minutes, not hours or days. (All material in this section is derived from the Pike Committee Hearings and Report, Ref. 6 in Bibliographic Notes.)

Figure 3 is a detailed enlargement of the potential warning phase with the significant elements in the chain of command on the vertical axis and time, in 15-minute intervals, on the horizontal axis. (Two kinds of time are expressed, I time in Korea and Z time.) Events as they occurred are also pinpointed across the bottom on the time axis.

The first CRITIC message was sent from the Pueblo at 0350Z, 20 minutes after the North Korean ship signalled the Pueblo "Heave to or I will open fire on you." (A CRITIC message is the highest precedence message which also insures delivery to highest echelons in the Pueblo's chain of command including the White House.) It is not a conference because there is no reverse CRITIC procedure to allow a two-way teletype conversation with the action level.

The heavily dashed lines indicate the transmission of the first CRITIC from the Pueblo's base (Kamiseya, Japan) to various recipients in the command chain. The X marks depict the distribution of the second CRITIC from the Pueblo which stated that the North Koreans were preparing to board the Pueblo. It will be noted that the second CRITIC was broadcast from Kamiseya prior to the first CRITIC and thus some recipients got them in reverse order.

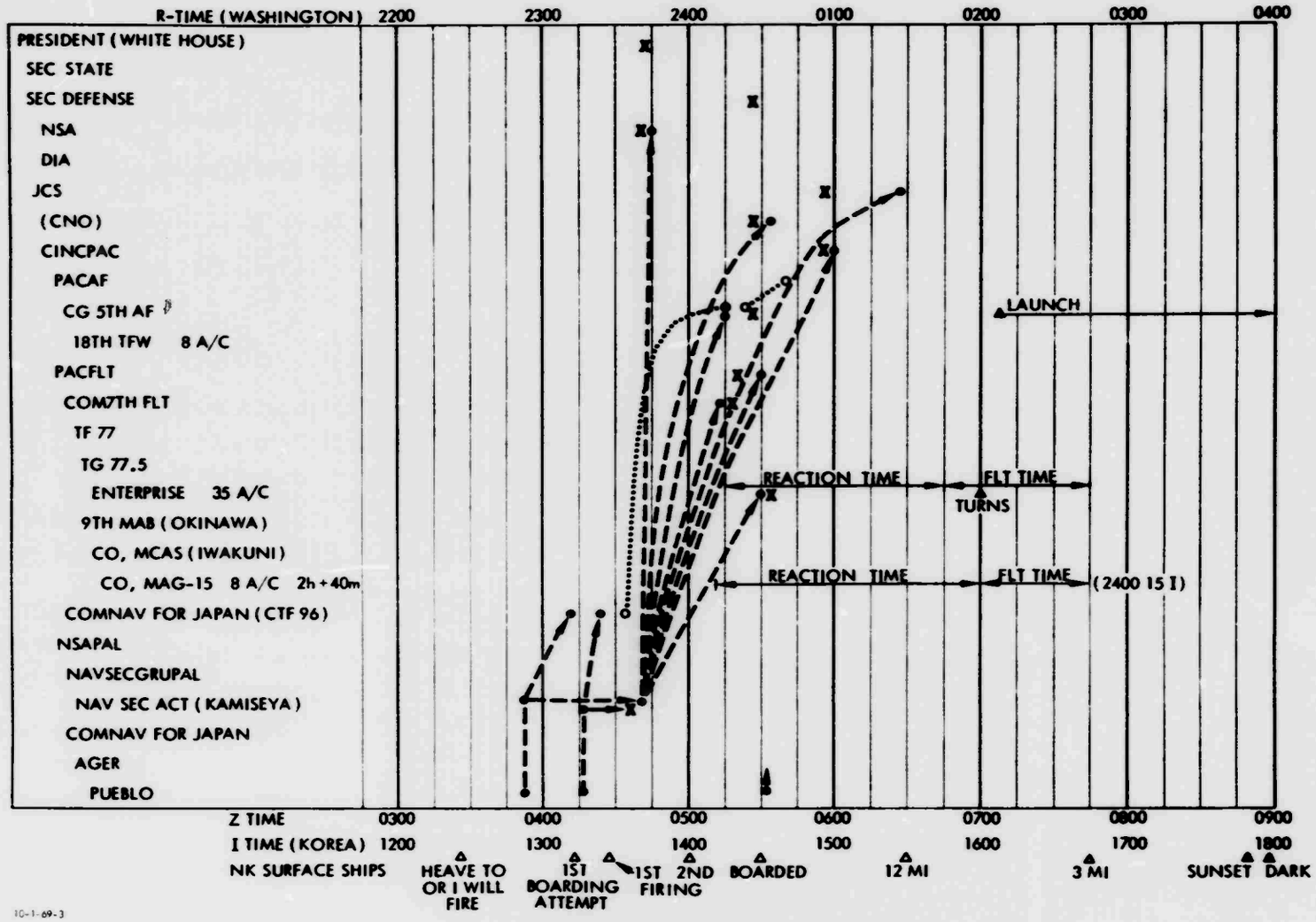

FIGURE 3. The Pueblo Case

Once it was established that the Pueblo was in serious trouble, the question at the local level was, naturally, what resources (aircraft in this case) were available to help the ship before she is taken inside the 3-mile limit. Figure 3 depicts the reaction and flight times of available aircraft at the time of transmission of the first CRITIC. Unfortunately, that message did not reach the USS ENTERPRISE until it was too late (by 15 minutes) and did not reach the Marine Air Group (MAG-15) until the next day.

The CG 5th Air Force alerted his aircraft in Okinawa immediately after receiving the first notification of Pueblo's plight, but the distance was too great for his aircraft to reach the area before dark.

It will be noted in Fig. 3 that there was at least an hour and 15 minutes from the time the Pueblo sent its first CRITIC message and the latest time that aircraft could have responded effectively. In other words, a total of 43 properly armed aircraft were available if the communication procedures had been geared to respond to CRITIC messages. These procedures would have been aided by conferencing. There was not enough time to relay the information in series from one echelon to another, either vertically or horizontally.

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III. CONFERENCING NETWORKS IN CRISIS CONDITIONS

We now turn to the problem of types of interconnective conference networks which would be useful in crisis circumstances as illustrated in the Pueblo case. Basically there should be three conference networks: a CRITIC Network, a Resources Network, and a Policy Network. A minimum condition should be that the CRITIC Net should have at least one principal (i.e., subscriber) in each of the other nets.

Figure 4 outlines how these networks might have been structured in the Pueblo case. The vertical conferencing network, or CRITIC Conference Net, should be established when the

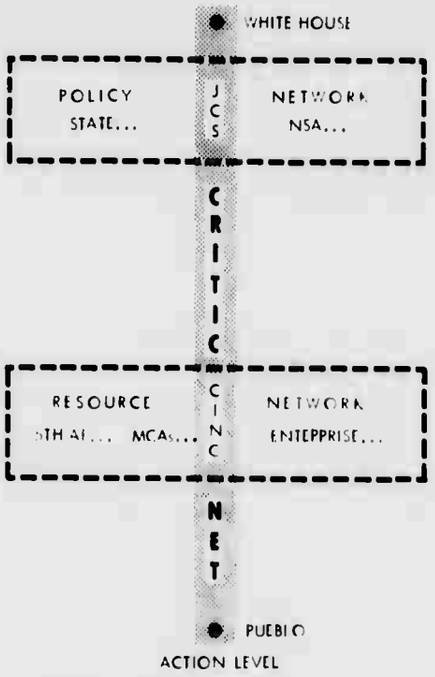

FIGURE 4. Crisis Conference Networks

first CRITIC message is sent. The CRITIC conference should include as a minimum all the CRITIC addressees who are in the operational command chain down to the originator. In a normal command chain this will include about ten conferees. Normally, a representative at the JCS should act as conference controller. The CRITIC Conference Net would use teletype.*

The Resource Conference Net would not be established until after the CRITIC Conference Net has been established unless the crisis situation is recognized prior to the first CRITIC transmission. The establishment of the Resource Conference Net must await the recognition of what type crisis is being generated in what geographical area in order to make a decision as to who should be participants. In the Pueblo crisis case it was apparent from the first CRITIC message that the resources in this case would be aircraft of any of the U.S. Armed Services which were suitable (or could be made suitable) for a conventional air operation in the Wonsan (North Korean) area. The Resources Conference Net could be teletype or voice (provided suitable modifications are made in the case of secure voice conferencing as noted later). The Resource Conference Net must have at least one member who is also participating in (or has immediate access to) the CRITIC Conference Net. In most cases this would be a representative of the CINC who has primary responsibility.

The Policy Conference Net would consist of a more fixed representation of major agencies and departments of the government. In most cases these would include (but not be limited to) the Department of State, the CIA, NSA, DIA, and a representative of the JCS (who is also a participant or has access to the CRITIC Conference Net). The JCS representative would

*In most cases a communication satellite in synchronous equatorial orbit with an earth coverage antenna would be very useful to use in a CRITIC Conference Net because of the geographical distances usually involved in crises. See IDA P-371, op. cit.[3]

usually be the J-3 (Director of Operations) in the NMCC (National Military Command Center). He might or might not be the same person as the conference controller of the CRITIC Conference Net mentioned earlier. The Policy Conference Net should also have the option of including the White House. The Policy Conference Network should be a secure voice network.*

Where there are members who are common to two networks, there is no major procedural problem as long as the CRITIC Conference Net uses conversational teletype. This condition excludes the possibility of one man participating in two voice conference networks at the same time.

Provision could be made for certain members of the Policy Conference Net to be able to query members of the Resource Conference Net on separate channels of communication (voice or teletype).

All conferencing networks must maintain flexibility as to membership and mode of communication because each crisis varies as to command elements involved. This flexibility is particularly critical at the lower echelons of command.

The purpose of these three conference networks would be the circulation of critical information for policy decision and operational action in the least amount of time. For example, in the Pueblo case the first CRITIC message would have established a CRITIC Conference Net from the highest echelons down the specific chain of command to the Pueblo. This net would allow the definition of the situation by query and response all the way to the ship itself. In actual fact, the Pueblo was able to maintain constant teletype communication for over one and a half hours after they sent their first CRITIC message.

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*Secure voice conferencing in the Washington area should not raise the procedural problems of AUTOSEVOCOM (to be discussed later) because other broad band short-haul communication channels are available.

While the CRITIC conference was taking place, the Resource Conference Network should have been established to determine the types of force resources (in this case aircraft) which were available to help the Pueblo. This conference would have included CG 5th Air Force, the CO of the Marin Air Group-15 in Iwakuni, Japan, and the commander of the Enterprise (see Fig. 3). The conference would have established the critical information derived from the CRITIC Conference Net and would have at least allowed the local commanders to alert their aircraft for action, thus reducing the total reaction time. In one case (CG 5th AF) the local commander had the authority to launch aircraft as well, subject to recall before action in the target area. It will be noted in Fig. 3 that a total of almost four hours was available for decision and action in the Pueblo case (i.e., from the time the Pueblo sent the first CRITIC until she crossed the 3-mile limit).

Once the Resource Conference Net had established what the resource options were, this information should have been passed through the Policy Conference Net by way of the CRITIC Conference Net (see Fig. 4). The Policy Conference Net would have advised the President or his representative of the potential consequences of various operational options. The decision would be transmitted down the chain of command on the CRITIC Conference Net.

It should be emphasized that the types of networks discussed in this section were not devised to meet the Pueblo case only, but to apply to most crisis situations. An analysis of other crisis situations would illustrate the feasibility of conference network operations in each case.

IV. CRISIS CONFERENCE INFORMATION CONTENT

Let us now assume one has achieved some type of remote conferencing networks for crisis communication. The next question is what types of information will be exchanged and shared in these networks by the participants. How quickly can questions be formulated which will winnow out the relevant information? One answer to that question is to use the basic query words, or interrogatives of English, arranged in a natural English sentence format, as illustrated in Fig. 5. This format incidentally was not designed for the Pueblo case, but has been used to analyze many other past crisis command and communication problems.[7]

These interrogatives were selected to cover the critical information necessary for military operations. If the verb phrase is transitive, then the same interrogatives are repeated on the other side of the sentence (right side of Fig. 5). This format can be used not only to frame the question but to elicit answers from various sources which, when put together, form a coherent sentence.

In the Pueblo case this can be illustrated in Fig. 6. In the first column (Message Identification) we put the time of receipt by the Pueblo's immediate superior (COMNAVFORJAPAN) of the first CRITIC message from the Pueblo (28 Jan 0415Z). The query format follows across the page and reads "How many U.S. aircraft located where as of when are available for a U.S. conventional air operation in the Wonsan area before 0745Z?" (The time element of 0745Z was an estimate as to how long it would take if the Pueblo were forced inside the 3-mile limit.

Msg. Idenf.	Sentence	Subject Phrase					Verb Phrase			Object Phrase					Additional Dep. Clauses	
		How Many?	Whose?	What?/ Who?	Where?	When?	Adv. (How?)	Mood Tense	Verb	How Many?	Whose?	What?/ Whom?	Where?	When?	Why? (Cause)/	Why? (Purpose)/
		N	P	Q/W	L	T				N	P	Q/W	L	T	Y_c/	Y_p

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FIGURE 5. Message Analyses

Msg. Idenf.	Sentence	Subject Phrase					Verb Phrose	Object Phrase					Additional Dep. Clouses	
		How Many?	Whose?	What?/ Who?	Where?	When?	Adv. (How?) Mood Tense Verb	How Many?	Whose?	What?/ Whom?	Where?	When?	Why? (Couse) / Why? (Purpose) /	Conj
DTG 23J 0415Z		?	US	A/C	?	?	ore ovailable for	1	US	conv. air op.	Wonsan area	before 0745Z		
		11	AF	F-4	Japan		not ovailable							
		5	AF	F-105	Japan		not ovailable							
		7	AF	F-4	S. Koreo		not ovailable							
		2	AF	F-105	Okinawa		not available*							
		35	USN	A/C	Enterprise		available							
		8	USMC	A/C	Japan		ovailable							
		43	US	A/C			available							
		N	P	Q/W	L	T		N	P	Q/W	L	T	Y_c/Y_p	

*Thase o/c were launched but recolled because of darkness

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FIGURE 6. Message Analysis: Pueblo Crisis

This estimate had to be derived from the Pueblo's location and speed). Basically this query format was essential to derive information from the various command elements who had aircraft resources. This was the information which was needed from the Resource Conference Net.

If there had been a response by each element, the responses could have resulted in an assessment as it appears, line by line, in Fig. 6. At the bottom of the figure is the summation of the information answering the original query: "43 U.S. aircraft are available." (Given the conditions of the query.)*

The answer to the basic query could have been obtained much more quickly had some type of conferencing been used. We now turn to what conferencing capabilities are available in the current operational environment.

*The same basic format (see Fig. 5) can be used in three additional situations:

(a) Where the subject side is the enemy force and the object side is a friendly target (threat assessment).

(b) Where the subject is the enemy force (internal enemy operations).

(c) Where the subject side is friendly force and the object side is friendly force (friendly operations, e.g., search and rescue).

V. CURRENT TELEPEHONE CONFERENCING CAPABILITIES

During the Pueblo crisis there were significant delays in accomplishing point-to-point telephone communication, delays which were procedural not technological. Note in Fig. 3 the dotted line from COMNAVFORJAPAN and CG 5th AF which points out a 40-minute delay in establishing communication and another 20-minute delay in a phone call from CG 5th AF to PACAF. The telephones being used were part of the current AUTOSEVOCOM secure voice communication system.

In spite of the procedural delays experienced in the Pueblo case, the AUTOSEVOCOM system would have been technically adequate to handle most point-to-point telephone calls. The same system, however, would be inadequate to accomplish conferencing, if for no other reason than the sheer complexity of the current procedures which make the system practically useless for anyone unless he is a communication specialist highly trained in the AUTOSEVOCOM system.[8] A glance at the appendix to this paper, which outlines in the Defense Communications Agency instructions for conferencing, will convince any reader of the hopelessness of trying to make a conference call. The first paragraph lists seven distinct audio tones which must be learned by the user, and this constitutes only a small part of the complex instructions which follow. Figures 7 and 8 attempt to show just one chain of the sine qua non procedural steps which must be taken to accomplish a conference call. If each step were given a 0.9 probability of correct completion, then the overall probability of accomplishing a conference would be less than 0.35.

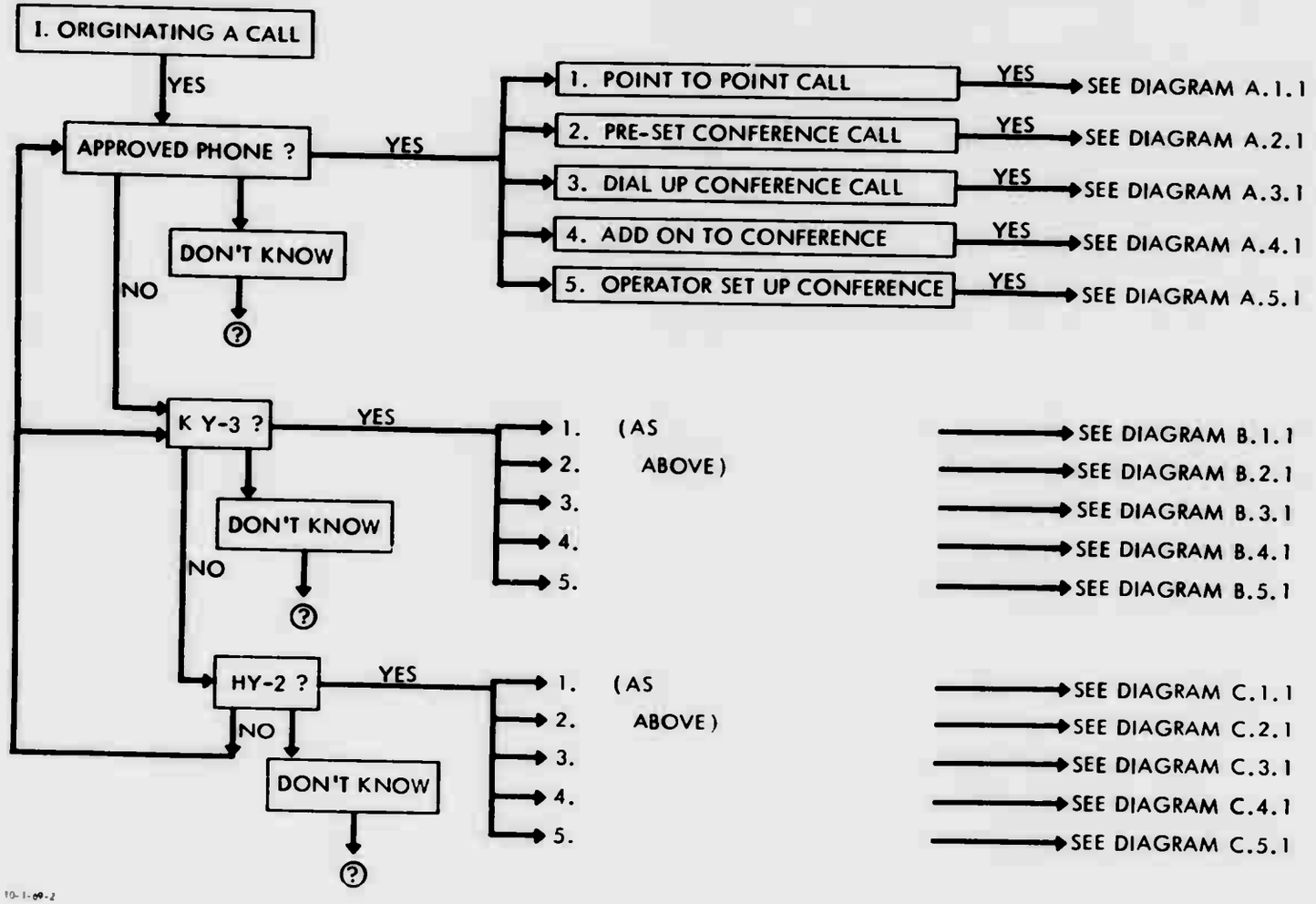

FIGURE 7. Procedural Steps

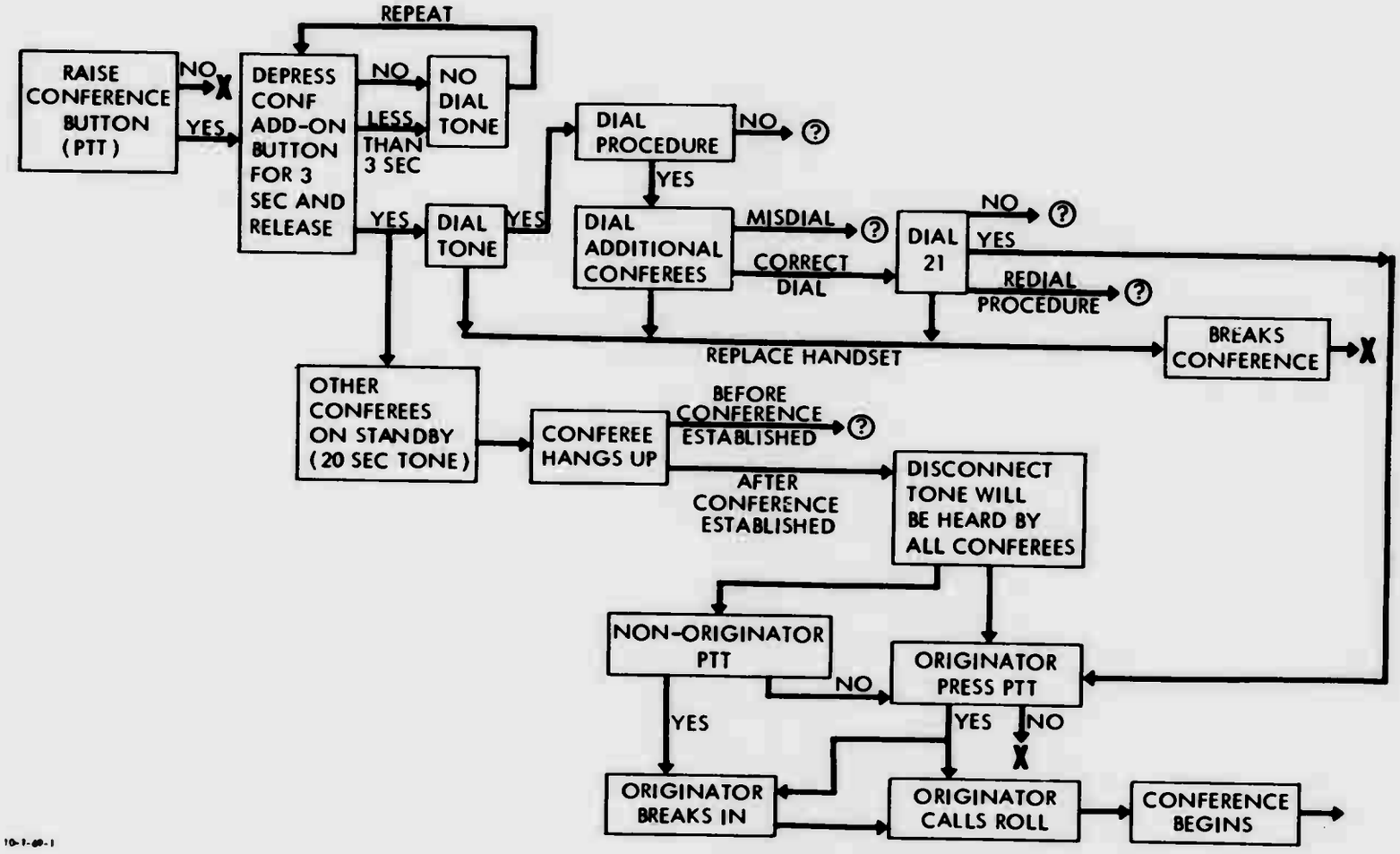

FIGURE 8. Approved Phone-Add on Procedure

The diagrams contained in Figs. 7 and 8 apply to the originator of the conference call. There is also a set of decisions for the recipient starting with when his phone rings. If he picks up his phone and hears a "short busy tone" on 0.8 seconds and off 0.8 seconds, he is not to hang up (perhaps thinking his phone is out of order), but rather he is supposed to know that this sound, which will last up to 20 seconds, means that a conference call is being made and to stand by. If he is knowledgable and patient, he will next hear a "low-pitched humming" which will continue until someone starts talking. If that person stops talking (for any reason) for three seconds, then the first person in the conference net to depress his push-to-talk button will have the capability to transmit into the net (provided he has no 3-second pauses in his speech).

So far we have not met a person who has actually achieved the experience of an AUTOSEVOCOM conference, thus our evidence is limited to the theory of conferencing as outlined in the DCA Instruction Manual (see Appendix). We have had considerable experience in conferencing under semi-AUTOSEVOCOM conditions. (See IDA Study S-194, op. cit.[9])

In the IDA study referenced above, we made a suggestion as to how conferencing could be achieved with some modifications to the current system by means of a "controlled Successive Broadcast" procedure. While this method of connecting the system might be desirable, it would take perhaps two years to become operational. In the meanwhile another procedure, which would take only minor physical modifications, could be accomplished in much less time. This would be to use "conversational teletype" techniques described in an earlier IDA report on teleconferencing.[1]

Briefly, conversational teletype is simply the principal dictating what he wishes to say directly to the operator. He also reads the responses on the teleprinter. The transmission

rate is slower than voice (approximately 30 words per minute vs. 125 words per minute) but this slower rate is offset by the advantages of record copy which allows quick reference to any part of the total discussion. The Carzo and Yanouzas experiments[4] also indicated the advantages of record copy or written communications such as teletype, particularly in the "loose" conferencing mode. Conversational teletype, unlike message communication, has the rapid feedback of voice communication, and is used among communicators. Another advantage of teletype is the ability to operate through a variety of security systems with little delay.

In summary, the current methods of secure voice conferencing appear to have poor prospects from an operational point of view. Measures can be taken to correct these shortcomings; however, there are means available to accomplish secure remote conferencing which require procedural rather than extensive physical changes.

VI. SUMMARY

1. Communications in crisis situations would greatly benefit from conferencing in order to reduce the time of converging information for assessment of the situation, the resources available for response, policy considerations of the response, dissemination of command decisions, and sensing the results of operational actions.

2. There are inadequate means of accomplishing operationally effective conferencing by secure voice in the current AUTOSEVOCOM communications system. Corrections of a technical and procedural nature might take as much as two years.

3. Teletype conferencing in the conversational mode could be accomplished in a relatively short time inasmuch as most of the changes would be procedural and teletype nets are already available.

4. Three types of conferencing networks should be established: CRITIC, Resource, and Policy. These nets should be functionally interconnected.

5. In addition to conferencing procedures, attention should be paid to the formulation of the critical questions to elicit the essential information relative to the crisis condition.

BIBLIOGRAPHIC NOTES

In May 1965 IDA submitted a study on the conferencing capabilities of the VOCOM system which was at that time in development.[9] VOCOM was designed to allow worldwide secure voice communication in point-to-point conferencing modes. Since then, the three VOCOM switches have been incorporated in the AUTOSEVOCOM system. Another research paper produced at IDA in January 1969 pointed out the advantages of the use of satellites in conferencing.[3] The earlier classified study pointed out some of the VOCOM peculiarities; these details have since become unclassified. The more recent study[3] examined the potential uses of conferencing during crisis situations.

1. In 1963 IDA produced a study (S-138) on Teleconferencing together with ten associated research papers (P-105 through P-114) on conferencing in various media of communication.
2. IDA Research Note N-578 discussed electrographic applications (1968).
3. Application of Communication Satellites to the Military Command Structure (U), unclassified Research Paper P-371.
4. Formal Organization, A Systems Approach, Rocco Carzo, Jr., and John Yanouzas, Homewood, Ill., The Dorsey Press, 1967, pp. 314-315.
5. Operations Research for Management, Vol. II, edited by Joseph F. McCloskey and John M. Coppinger, Baltimore, Johns Hopkins Press, 1956, pp. 488-493.
6. Inquiry into the USS Pueblo and EC-121 Plane Incidents, Hearings before the Special Committee on the USS Pueblo of the Committee on Armed Services, House of Representatives, 91st Congress, 1st Session March, April 1969. Also, Report of same dated 28 July, 1969. Cited as Hearings or Report.

7. Language of Command, IDA Report TR-62-17, August 1962.

8. DCA Circular 310-S70-12, dated 14 July 1967, AUTOSEVOCOM Operating Procedures and Directory (U), classified CONFIDENTIAL except for those portions dealing with the procedures which are designated UNCLASSIFIED.

9. Experiments in Remote-Voice Conferencing (U), 2 Vols., IDA Study S-194. SECRET. An additional IDA study on the AUTOSEVOCOM system was also performed in 1968 under the title Secure Voice Communication in the Department of Defense (U), classified TOP SECRET.

APPENDIX

Para 7 (U) PROCEDURES FOR ESTABLISHING CALLS (DCAC 310-S70-12, 14 July 1967)

a. The following tones are discussed in this section:

Tone	Recurrence Rate	Sounds Like
Dial	Continuous until dialing begun.	Commercial dial tone (not converted to touch tone operation).
Ringback	On 1.6 sec, off 1.6 sec until party answers.	Heard only during interval when dialing has been completed and called party answers.
Busy	On .4 sec.	Normal busy tone.
Preempt	(1) If called, .5 sec then preempting party comes on line.	Short dial tone.
	(2) If talking to called party.	Dial tone.
Conference Standby	On .8 sec, off .8 sec.	Short busy tone.
Conference	Continuous until one conferee begins talking.	Low pitched humming.
Conference Disconnect	On .8 sec, off .8 sec 3 times after one conferee has hung up or been disconnected.	Same as standby but lasting only 3 cycles, or 4.8 sec.

b. Approved Phone or KY-3 Subset.

(1) Single Calls. Raise handset and listen for dial tone; then, in sequence, dial the precedence number and the five-digit number for the subscriber desired. When the called party answers, proceed with the call.

(a) If an error is made in dialing, hang up and restart the sequence.

(b) If the called party's line is engaged with a call of equal or higher precedence, a busy signal will be heard.

(c) Calls in progress may be preempted by calls of a higher precedence. In such instances, preemption will be indicated by a preempt tone after which the line will either be disconnected or a new calling party will come on the line.

(2) Preset Conference Calls.

(a) Raise handset and listen for dial tone; then, in sequence, raise the conference mode button and dial the precedence, the five-digit preset conference number, and the end-of-conference number 21. A conference standby tone of up to 20 seconds duration will be heard.

1. If additional conferees are desired, the individual subscriber numbers must be dialed after the preset conference number and before dialing the end-of-conference number 21. Do not re-dial the precedence number.

2. If a mistake is made in the number dialed, complete the dialing of the erroneous number and wait for a dial tone. Next dial 22 and correct number. Variance with this procedure will cause a disconnect from the switch and require a complete redialing action.

(b) The conferees will be alerted by a ringing signal. Upon raising their handsets and hearing the standby tone, conferees must activate the conference mode button on their subsets. Failure to answer the ringing signal within 20 seconds will result in a conferee automatically being dropped from the conference. Use of the add-on procedures (para (c)3) would then be necessary to restore the conferee to the conference.

(c) When the conference standby tone stops, an idle tone will be heard. The conference originator should call the roll of the conferees at this time. Since the push-to-talk feature of the handset limits conversation to one individual at a time, a pause, followed by an idle tone, is

inserted between the time a question is asked and the reply is given. Only the conference originator has the capability to interrupt a conversation in progress without waiting for a pause.

1. The push-to-talk switch on the handset is activated by the conference mode button and is only effective during conference calls. Users must wait for the idle tone and then firmly depress the push-to-talk switch prior to speaking; the push-to-talk switch must be completely released at all other times during a conference.

2. Should a conferee hang up or be preempted during a conference, a disconnect tone will be heard by all conferees. A roll call to identify the disconnected subscriber is necessary in such instances.

3. The conference originator may subsequently include additional conferees in a conference by depressing the add-on button until the dial tone is heard, and dialing the precedence number, five-digit subscriber number for each additional conferee and the number 21, in sequence. Do not re-dial the precedence number. Original conferees will hear the conference standby tone and the conference idle tone following which a new roll call is in order.

(3) Regular Conference Call.

(a) Raise handset and listen for dial tone; then in sequence, raise the conference mode button and dial the precedence number, each five-digit subscriber number desired, pausing for the dial tone between numbers, and the number 21. It is not necessary to re-dial the precedence number for each conferee. A standby conference tone of up to 20 seconds duration will now be heard. All conferees should now proceed as indicated in subparagraphs (2)(a)2 through (2)(c)3.

(b) A regular conference call may be set up for the user by the switch operator by dialing the precedence number and 0. The operator will dial up the requested conference in the above manner then will designate the requesting party as conference originator and automatically be disconnected from the circuit.

c. HY-2 Digital Subsets.

(1) Single Calls. Raise handset and listen for dial tone; then, in sequence, key the precedence number, the five-digit number for the subscriber desired, and the SEND button on the subset.

(a) If an error is made, depress the ERROR CLEAR button, wait for dial tone and then re-dial correct number.

(b) If the called party's line is engaged with a call of equal or higher precedence, a busy signal will be heard.

(c) Calls in progress may be preempted by calls of a higher precedence. In such instances preemption will be indicated by a preempt tone after which the line will either be disconnected or a new calling party will come on the line.

(2) Preset Conference Calls.

(a) Raise the handset and listen for dial tone; then, in sequence, key the conference mode button, the precedence number and the SEND button on the subset. When the dial tone returns, key the five-digit preset conference number, the SEND button, the end of conference number 21 and the SEND button. A conference standby tone of up to 20 seconds duration will not be heard.

1. If additional conferees are desired, the individual subscriber numbers must be dialed after the preset conference number and before dialing the end-of-conference number 21. Do not re-dial the precedence number.

2. If an error is made in the number dialed, key the ERROR CLEAR button, the correct five-digit subscriber number and the SEND button, and continue as stated in (2)(a) above. If the error is noted after the SEND button is keyed, dial 22 and then, re-dial the correct number.

(b) The conferees will be alerted by a ringing signal. Upon raising their handsets and hearing the standby tone, conferees must activate the conference mode button on their subsets. Failure to answer the ringing signal within 20 seconds will result in a conferee automatically being dropped from the conference. Use of the add-on procedures (para (c)3) would then be necessary to restore the conferee to the conference.

(c) When the conference standby tone stops, an idle tone will be heard. The conference originator should call the roll of the conference at this time. Since the push-to-talk feature of the handset limits conversation to one individual at a time, a pause, followed by an idle tone, is inserted between the time a question is asked and the reply is given. Only the conference originator has the capability to interrupt a conversation in progress without waiting for a pause.

1. The push-to-talk switch on the handset is activated by the conference mode button and is only effective during conference calls. Users must wait for the idle tone and then firmly depress the push-to-talk switch prior to speaking; the push-to-talk switch must be completely released at all other times during a conference.

2. Should a conferee hang up or be preempted during a conference, a disconnect tone will be heard. A roll call to identify the disconnected subscriber is necessary in such instances.

3. The conference originator may subsequently include additional conferees in a conference by depressing the add-on button until the dial tone is heard and dialing the five-digit subscriber number for each additional subscriber and the number 21, in sequence. Do not re-dial the precedence number. Original conferees will hear the conference standby tone and the conference idle tone following which a new roll call is in order.

(3) Regular Conference Calls. Raise handset and listen for dial tone; then in sequence, key the conference mode button, precedence number and the SEND button. Next key each five-digit subscriber number desired and the SEND button, pausing for the dial tone between each combination number 21 and the SEND button. A standby conference tone of up to 20 seconds duration will now be heard. All conferees should now proceed as indicated in subparagraphs (2)(a)2 through (2)(c)3.

PRECEDENCES

a. The following numerical listings are the dialed digits used in the VOCOM system to denote a Joint Uniform Telephone Communications Precedence. Subscribers will select the appropriate single call or conference call digital precedence indicator, in accordance with provisions of the Joint Uniform Telephone Precedence System. See appropriate instructions when dialing precedences in the FTC-31 and WECo 758C sub-systems. (The precedence numbers are different from those in VOCOM, in the case of the FTC-31). The provisions of paragraphs 8b and 8c below apply to all sub-systems.

Precedence	Single Call	Conference Call
FLASH OVERRIDE*	5*	
FLASH	1	6
IMMEDIATE	2	7
PRIORITY	3	8
ROUTINE	4	9

*Not a precedence. FLASH OVERRIDE is a system capability reserved for use only by those individuals specified in the JCS Memorandum of Policy 151, Provision of AUTOVON Service.

b. The criteria and preemption features of the Joint Uniform Telephone Communications Precedence System shown below, are directed for use by all authorized users of voice communication facilities of the Department of Defense. Effectiveness of the precedence system depends upon the cooperation of persons authorized to use it, their familiarity with the purpose to be derived by each precedence category, the types of calls which may be assigned the respective precedence, and the care exercised in the use of a precedence which is not higher than the circumstances warrant.

(1) FLASH - Flash precedence is reserved for alerts, warnings, or other emergency actions having immediate bearing on national, command or area security; e.g., Presidential use, announcement of an alert, land or sea catastrophies, intelligence reports on matters leading to enemy attack, potential or actual nuclear accident or incident, implementation of services' unilateral emergency actions procedures, etc.

Has precedence over any other telephonic call of lower precedence. Preempts lower precedence calls. May be preempted by the application of the FLASH OVERRIDE capability.

(2) IMMEDIATE - Immediate precedence is reserved for vital communications (a) having an immediate operational effect on tactical operations, (b) which directly concern safety or rescue operations, (c) which affect the intelligence community operational role; e.g., initial vital reports of damage due to enemy action; land, sea, or air reports which must be completed from vehicles in motion such as operational mission aircraft; intelligence reports on vital actions in progress; natural disaster or widespread damage; emergency

weather reports having an immediate bearing on mission in progress; emergency use for circuit restoration; use by tactical command posts for passing immediate operational traffic, etc.

Has precedence over any other telephonic call of lower precedence.

(3) PRIORITY - Priority precedence is reserved for calls which require prompt completion for national defense and security, the successful conduct of war or to safeguard life or property, which do not require higher precedence; e.g., reports of priority land, sea, or air movement; administrative, intelligence, operational, or logistic activity calls requiring priority action; calls that would have a serious impact on military, administrative, intelligence, operational or logistic activities if handled as ROUTINE call. Normally, PRIORITY will be the highest precedence which may be assigned to administrative matters for which speed of handling is of paramount importance.

Has precedence over any other telephonic calls of lower precedence.

(4) ROUTINE - Routine precedence is reserved for all other official communications.

Has no precedence over any other call and is handled sequentially as placed by the calling party. No preempt.

c. Inasmuch as there is no present method available at the AUTOSEVOCOM switches to limit precedence usage to those subscribers strictly having a need to them, it is imperative that all subscribers exercise precedence capabilities strictly in accordance with the above criteria. Failure to do so will destroy the effectiveness of the system in times of emergency.

OPERATOR ASSISTANCE

a. Subscribers may obtain the assistance of their local switch operator by dialing the precedence number and 0. To obtain the assistance of the supervisor at another switch, sucscribers should dial the precedence digit, appropriate two-digit office code, and 000 in sequence; for example:

Precedence	Switch	Operator
4	33 (NORAD) or 44 (Pentagon) or 55 (Eucom)	000

b. Reports of service interruption should be made directly to the serving switch operator. In the event of inability to report via AUTOSEVOCOM, AUTOVON or commercial means shall be utilized. The following numbers may be used to report system troubles:

Switch	AUTOVON No.	Commercial or Base No. Area Code	
33 (NORAD)	348-2311	303	635-8911 ext 2311 ext 2961
44 (Pentagon)	225-9854 227-3681 227-6678	202	OX5-9854 OX7-3681 OX7-6678
55 (EUCOM)			996-4800 ext 8134 ext 7831 (Ask for VOCOM)

FOR THE DIRECTOR:

OFFICIAL:

EDWARD H. HEUER
Captain, USN
Executive Officer

S/ARTHUR E. HAYES
Chief, Administrative Division

5 Enclosures
1. Talk-Quick Calling Instructions
2. FTC-31 Calling Instructions
3. Pentagon Switch (WECo 758C) Calling Instructions
4. Washington Area Inter-Switch Calling Instructions
5. AUTOSEVOCOM Subscriber Directory

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13 ABSTRACT

The needs and potential uses of remote conferencing in a crisis environment are examined. An analysis of the PUEBLO incident, based on the unclassified Pike Committee Hearings and Report, is used to illustrate the potentials of conferencing during a crisis. Unclassified paragraphs of the Defense Communications Agency (DCA) instructions on how to establish a conference with current equipment are discussed and analyzed. Some suggestions on how to overcome some of the difficulties in attaining a usable conferencing capability are included.

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