

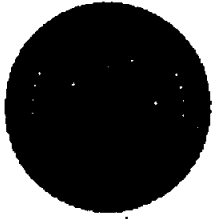
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BY ORDER OF THE COMMANDER

STRATEGIC COMMAND DIRECTIVE

(SD) 523-2

3 MAY 2004



*Operations, Planning, and Command and Control*

***THEATER EVENT SYSTEMS (TES)  
ARCHITECTURE AND OPERATIONS (U)***

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(U) This SD provides a description of the Theater Event System (TES) architecture, and provides policy and guidance to the TES elements and the Cheyenne Mountain Missile Warning Center (MWC). This SD is releasable to Canadian, United Kingdom (UK) and Australian personnel occupying positions in forces assigned or attached to North American Aerospace Defense Command (NORAD), United States Strategic Command (USSTRATCOM) and Air Force Space Command (AFSPC) with a strict need-to-know. It applies to USSTRATCOM, its components, associated agencies and activities in support of the Theater Missile Warning (TMW) mission. The reporting requirements in this SD are exempt from Report Control Symbol (RCS) licensing. A glossary of references and supporting information is at Attachment 1.

### **SUMMARY OF REVISIONS**

~~(S//REL)~~ System descriptions have been updated with current information. This SD reflects the inclusion of Space Based Infrared System (SBIRS) technologies. [REDACTED]

[REDACTED] The Multi-Mission Mobile Processor (M3P) has been added as a TES element. The role of the USSTRATCOM Global Operations Center (GOC) was added. The reporting errors section was updated to provide clarification and procedures for specific types of reporting. [REDACTED]

[REDACTED] New First Detect First Report (FDFR) procedures have been added. Contingency plan for FDFR conference failures has been added. [REDACTED]

[REDACTED] TES Areas of Interest (AOIs) have been updated to reflect the current Theater Ballistic Missile (TBM) threats and associated profiles. An updated AOI management policy is outlined. Definitions, instructions, and procedures for [REDACTED]

[REDACTED] New Operations Capability (OPSCAP) definitions incorporate Theater Satellite Capability (SATCAP). TES elements must notify the MWC as soon as possible (ASAP) of OPSCAP changes, since these could affect the TES Capability (TESCAP) and must be reported to the affected theater. The Daily Operations Report has been changed to the Situation Report (SITREP) for standardization purposes, and format was modified to make information easier to capture by SITREP users, and easier to enter by TES elements. An example SITREP is included. The new TES Exercise Support paragraph outlines exercise request requirements for users (TES Exercise Support Request message) and exercise design procedures for TES elements. A section was added to establish the TES Data Collection and Evaluation process. A TES Operational Measures of Effectiveness (MOE) paragraph was added for informational purposes. A SITREP example has been included.

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1. ~~(S/REL)~~ System Description. The Theater Event System (TES) provides Theater Missile Warning (TMW), including Shared Early Warning (SEW), to theater users primarily for passive defense. [REDACTED] The TES processes overhead non-imaging infrared (IR) data from Defense Support Program (DSP) [REDACTED] sensors into missile warning [REDACTED] (Slow Walker), and IR Special Event (SE) (explosions, fires, etc.) messages. The TES producers send these messages over Integrated Broadcast Service Simplex (IBS-S), Integrated Broadcast Service Interactive (IBS-I), LINK 16, and voice circuits. In the future, TES may incorporate additional IR and radar sources, to include, but not limited to, airborne IR platforms and surface radars. This SD reflects the inclusion of Space Based Infrared System (SBIRS) technologies. These have been included to provide seamless integration of these capabilities as they become available. As a supporting Combatant Commander, Commander USSTRATCOM (CDRUSSTRATCOM) executes the TMW mission in support of Geographic Combatant Commanders (GCCs) (and by extension, all theater users) within their geographic Areas of Responsibility (AOR).

1.1. ~~(S/REL)~~ TES Mission Scope. The TES is used to meet the theater users' requirements for TMW, Slow Walker (SW), IR SE situational awareness, and Battle Space Characterization (BSC). [REDACTED]

1.1.1. (S/REL) [REDACTED]

1.2. (U) TES Elements. The TES is comprised of the following processing and reporting elements: SBIRS Mission Control Station (MCS), SBIRS MCS Backup (MCSB), SBIRS Interim MCS Backup (IMCSB), JTAGS, Tactical Detection and Reporting (TACDAR), and theater M3Ps.

1.2.1. (U) MCS, IMCSB, JTAGS, and theater M3Ps are USSTRATCOM combatant command (COCOM) assets. USSTRATCOM delegates operational control (OPCON) of MCS and IMCSB to Air Force Space Command (AFSPC) and OPCON of JTAGS and theater M3Ps to Army Strategic Command (ARSTRAT). CDRUSSTRATCOM, through the Director of Global Operations (USSTRATCOM/OP), will task the component commanders and MWC through the Global Operations Center (GOC) using mission type orders (e.g., operations orders). The MWC will conduct theater missile warning current operations and task the TES elements as directed in the Operations Order (OPORD). The component commands maintain Direct Liaison Authority (DIRLAUTH)

with each other, and retain OPCON of assigned forces in support of the theater missile warning mission unless otherwise directed by CDRUSSTRATCOM and the Secretary of Defense (SECDEF). USSTRATCOM uses all of the TES elements to fulfill theater commanders' TMW requirements.

1.2.2. ~~(S//REL)~~ JTAGS. JTAGS is operated by ARSTRAT and jointly manned with Naval Network and Space Operations Command (NNSOC). JTAGS is the air transportable, in-theater, mobile element of TES. JTAGS directly receives and processes data from DSP satellites within its field-of-view. JTAGS normally provides dedicated monitoring of the AOR in which it is deployed. [REDACTED]

[REDACTED] ARSTRAT has procured five JTAGS. Three operational units are deployed overseas (JTAGS-European Command (JTAGS-EUR), JTAGS-Pacific Command (JTAGS-PAC), and JTAGS-Central Command (JTAGS-CEN)). The two remaining units are currently stationed within CONUS and are used for training and contingency operations in support of the forward deployed detachments.

1.2.3. (U) Theater M3P. The theater M3P will be operated by ARSTRAT and jointly manned with NNSOC. The theater M3P is a functional replacement of JTAGS and will deploy in replacement of each JTAGS in theater.

1.2.4. ~~(S//REL)~~ SBIRS MCS. The MCS is operated by 14th Air Force (14 AF) through 21st Space Wing, 2nd Space Warning Squadron (2 SWS) in addition to the 8 SWS, an Air Force Reserve unit. [REDACTED] The MCS can process data from all DSP satellites through remote ground stations and communication satellite relays. [REDACTED]

1.2.5. ~~(S//REL)~~ SBIRS IMCSB. The IMCSB is the interim backup to the MCS and will provide backup until the permanent MCSB is built [REDACTED] The IMCSB is a dual-use system that supports software development when not being used for operations. [REDACTED]

1.2.6. ~~(S//REL)~~ TACDAR. TACDAR is the National System's element of TES. [REDACTED]

1.2.7. (U) Cheyenne Mountain Missile Warning Center (MWC). The MWC is the command and control element of the TES that facilitates TMW receipt at designated theater command centers. USSTRATCOM, via the MWC, is the overall TES system management authority. The MWC monitors the operational capability (OPSCAP) of the TES, coordinates and de-conflicts scheduled and unscheduled processor downtime, and coordinates AOI assignments with TES elements as necessary. The MWC also monitors the health and status of the TMW architecture to include the TES elements and the IBS-S and IBS-I broadcasts and informs the USSTRATCOM GOC and designated theater users when outages will affect warning in the respective AORs. The MWC also directs short notice critical tasking of MCS/IMCSB and JTACS when time does not permit the information to flow through normal command channels. This applies only if operational impact will occur; all other tasking/requirements will flow through normal staff channels. Additionally, the MWC performs net control functions for voice reporting, coordinates TES-reported events within Cheyenne Mountain Operations Center (CMOC), coordinates time-critical information concerning mission activity with the processor elements, and other command and control functions. The MWC also passes Period of Interest (POI) information to all TES elements and can direct the addition of AOIs to ensure TES coverage of the POI.

1.2.8. ~~(S//REL)~~ MWC-USSTRATCOM Command Relationship. The role of the MWC is to ensure operational TMW systems under the command of USSTRATCOM support the theaters to the level necessary to ensure TMW is received in theater at the designated command centers. The MWC receives TMW data near simultaneously with theater users. [REDACTED]

[REDACTED]

The MWC is responsible for:

1.2.8.1. (S//REL) [REDACTED]

1.2.8.2. (S//REL) [REDACTED]

1.2.8.3. (S//REL) [REDACTED]

1.3. (S//REL) [REDACTED]

[REDACTED]



1.3.1. (S/REL)

[REDACTED]

1.3.2. (S/REL)

[REDACTED]

1.3.3. (S/REL)

[REDACTED]

2. ~~(S/REL)~~ Mission Event Processing. USSTRATCOM accomplishes TMW via two methods: 1) Warning Data Direct to Users, and 2) Voice Reporting.

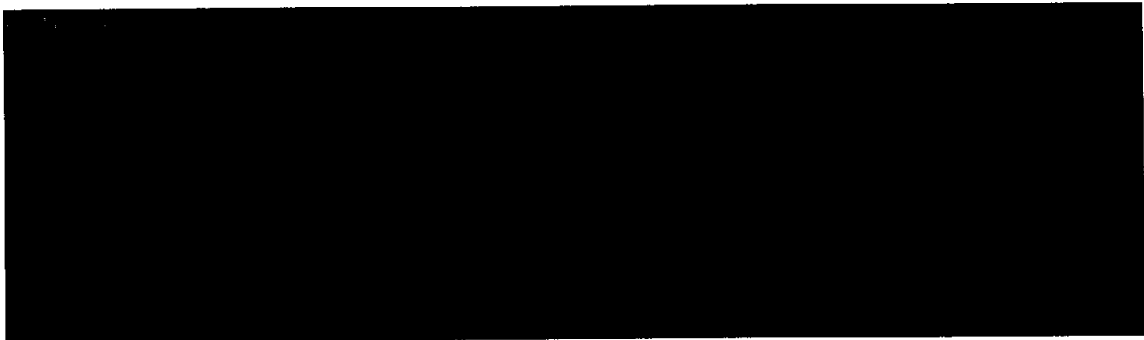
[REDACTED]

2.1. (S/REL)

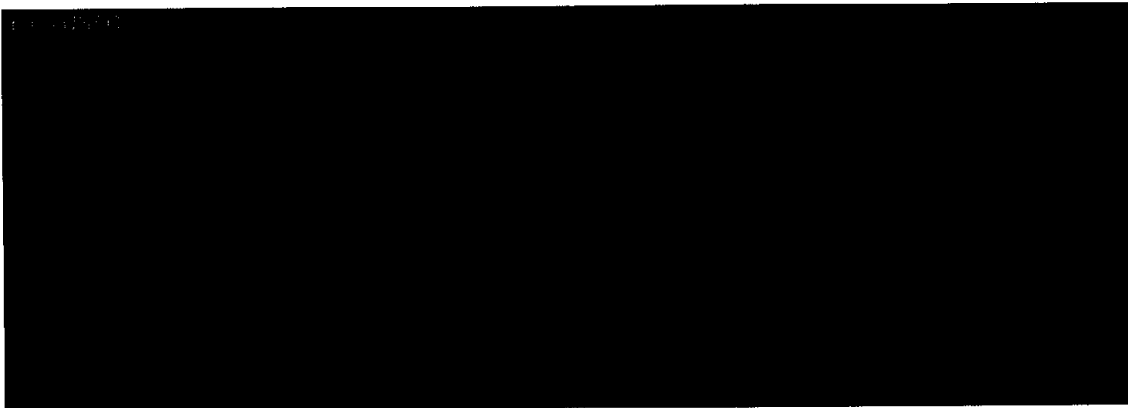
[REDACTED]

2.1.1. (S/REL)

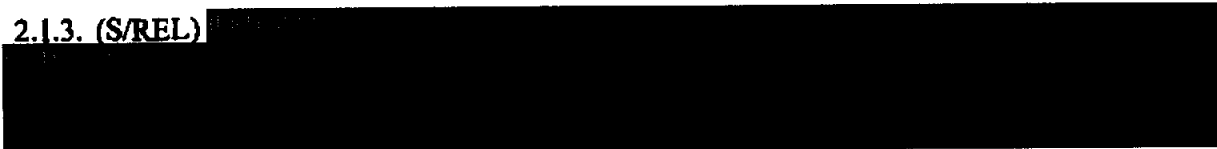
[REDACTED]



2.1.2. (S/REL)



2.1.3. (S/REL)



2.1.4. (S/REL)

[REDACTED]

2.2. (S/REL)

[REDACTED]

2.2.1. (S/REL)

[REDACTED]

[REDACTED]

2.2.2. (S/REL)

[REDACTED]

[REDACTED]

3. ~~(S//REL)~~ **Mission Criteria.** Mission event reports must be reviewed to determine validity prior to release across the tactical networks. The USSTRATCOM goal is to preserve the integrity of and confidence in the TES by releasing only valid mission event reports. ~~(S//REL)~~

~~(S//REL)~~

To standardize reporting procedures, the following mission criteria will apply (Tables 1., 2., 3.).

Table 1. ~~(S//REL)~~ Missile Criteria. (U)



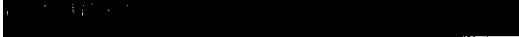
Table 2. ~~(S//REL)~~ 

Table 3. (S/REL) IR Special Events Criteria. (U)



3.1. (U) Mission Operator. It is the responsibility of the mission operator to evaluate the validity of special IR data regardless of intensity.

3.2. ~~(S/REL)~~ NORAD Command Director (CD). The CD is authorized to enter a POI for specific domestic events (based on Domestic Threat Conference initiation).



The CD will use the CMOC Ops Loop to initiate contingency scenario/POIs.

3.3. (U) Mission Criteria Definitions. These definitions have been obtained from operational launches and are general guidelines to aid in determining event validity.

3.3.1. (S/REL)



3.3.2. (S/REL)



3.3.3. (S/REL)



3.3.4. (S/REL) [REDACTED]

3.3.5. (S/REL) [REDACTED]

3.3.6. (S/REL) [REDACTED]

3.3.7. (S/REL) [REDACTED]

3.4. (U) Two Action Release. During peacetime operations, TES elements will implement two action release procedures to disseminate missile warning data messages. Two action release is defined as an operator being required to take two separate actions to release a TBM warning message (e.g., having to hit the release button twice before releasing a TBM warning message). Two action release is required to reduce the potential for inadvertent releases. During a crisis or wartime situation, single action release may be implemented at the site commander's discretion.

3.5. (U) Reporting Errors. Reporting errors are TBM events inconsistent with the TES goal of only releasing valid mission event reports. A valid event is defined as any event reported by TES meeting defined release criteria.

3.5.1. (U) False Report. A false report is a released TBM event report which does not meet the release criteria in Table 1. and did not actually occur. The TES element involved will immediately send a cancel data message, and initiate the FDFR conference and report an event cancellation in accordance with (IAW) paragraph 5.8.

3.5.2. (U) Mission Failure. A missed event is a TBM event meeting the release criteria in Table 1., but is not released by an operator. A missed event constitutes mission failure.

3.5.3. (U) Double Release. Release of a single valid TBM event with two different track numbers from the same TES element constitutes a double release. To avoid confusion to users, the TES element involved will immediately send a Cancel Data Message for one of the messages, and immediately activate the appropriate FDFR conference and report the valid missile IAW paragraph 5.2.

3.5.4. ~~(S/REL)~~ Event mis-typing. [REDACTED]

[REDACTED] TES elements must use all information available to ensure the highest probability of correct event typing. If additional information presents itself, TES elements must update their initial report with the new data. TES elements will provide comments in daily reports to highlight mis-typing causes when a known mis-typing occurs.

3.5.5. (S/REL) [REDACTED]

3.5.6. (U) Reporting Error Procedures. When a reporting error occurs, the TES element involved will comply with the applicable paragraph above. If the error was caused by a system problem, the TES element will accomplish required actions to prevent further release of false data. If necessary the TES element will disable the dissemination system to prevent further reporting errors until the problem is corrected. USSTRATCOM component commands must up-channel all system problems to the Space Enhancement Division (USSTRATCOM/OP50) IAW current procedures.

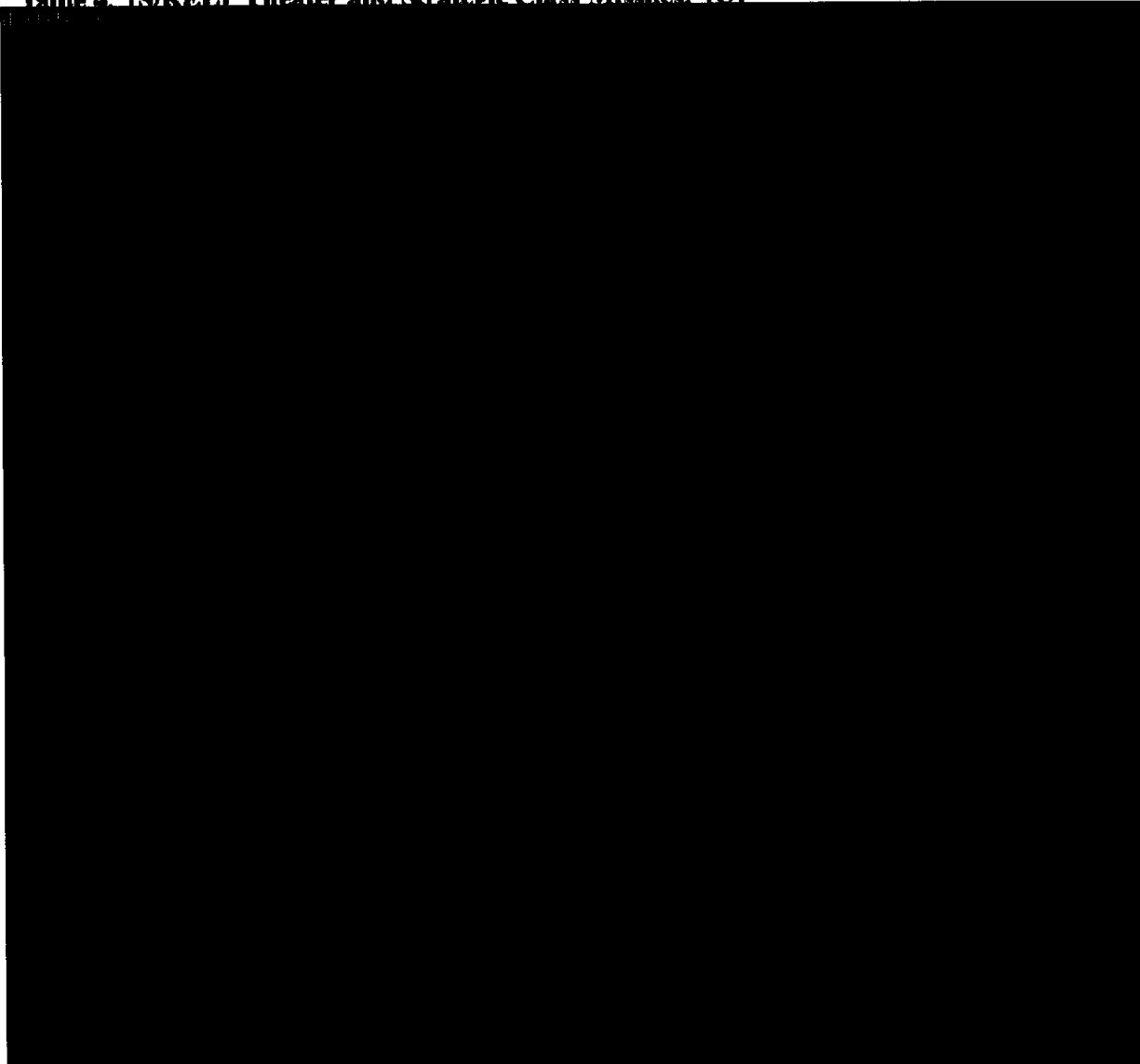
3.6. ~~(S/REL)~~ [REDACTED]


[REDACTED] TES elements should make every effort to improve TMW to theater users through ongoing modifications to operational software, hardware, and procedures that enhance warning message quality, as well as shorten message release times and arrival times to theaters. [REDACTED]

4. (U) Data Warning. TES elements disseminate warning messages over IBS-S and IBS- I. Additional update messages using the same track number may be released if they provide more accurate warning messages to theater users (e.g., missile retying and additional data points).

4.1. (S/REL) [REDACTED]

Table 4. (S//REL) Theater and Strategic Class Missiles. (U)



4.2. ~~(S//REL)~~ IBS-S Format - SW (Table 5.). The following series of reports are authorized for release. Update reports will be transmitted based on the criteria listed in Table 5. 

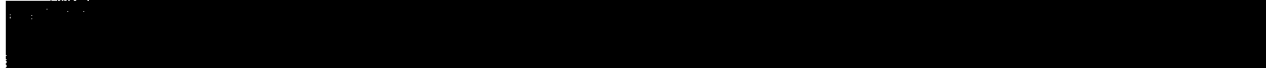




Table 5. (S/REL) [REDACTED]

4.3. (S/REL) IBS-S Format – SEs (Static, Non-Static) (Table 6). [REDACTED] IR SEs  
[REDACTED] are released over IBS-S and IBS-I.

Table 6. (S/REL) IR Special Events. (U)

[REDACTED]

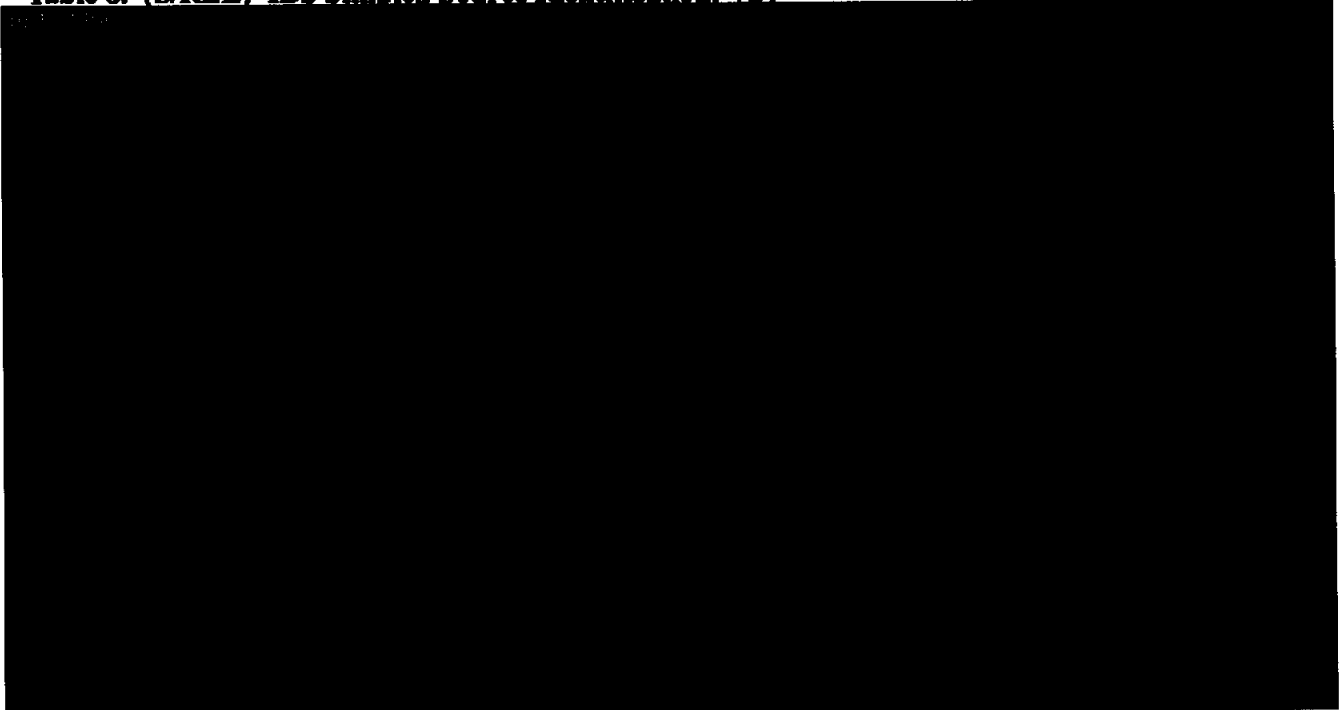
4.4. (S/REL) IBS-S Format - Operational Status Reports (Table 7).  
[REDACTED]  
The reports are displayed at a static location.

Table 7. (S/REL) Operational Status Reports. (U)

[REDACTED]

4.5. (S/REL) IBS-S Source Identification.  
[REDACTED]

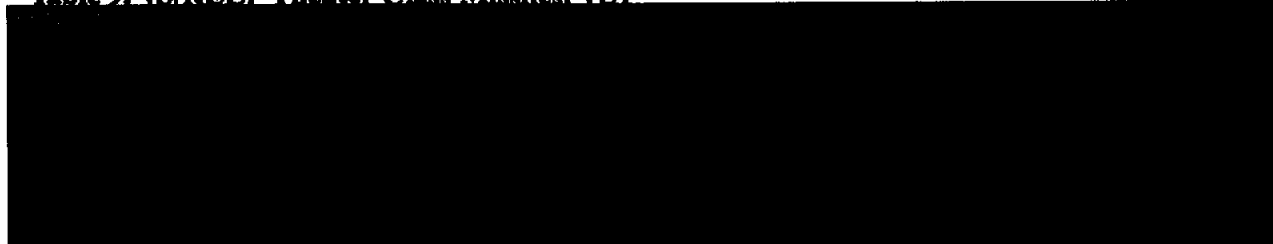
**Table 8. (S/REL) IBS Simplex Source Identification. (U)**



**4.6. (S/REL) IBS-I Format - Missiles. (U)**



**Table 9. (S/REL) Theater Class Missiles. (U)**



**4.7. (S/REL) IBS-I Format - SW (Table 10.). (U)**



**Table 10. (S/REL) (U)**

4.8. ~~(S//REL)~~ IBS-I Format - Operational Status Reports (Table 11).

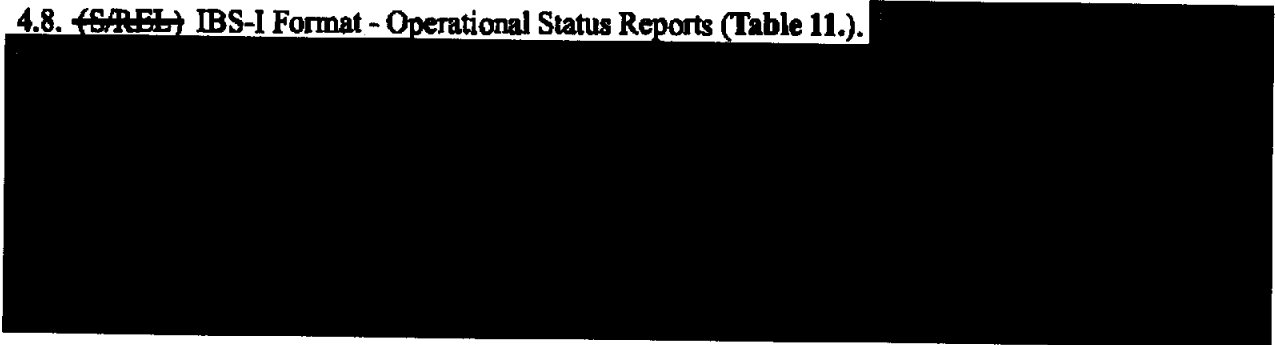
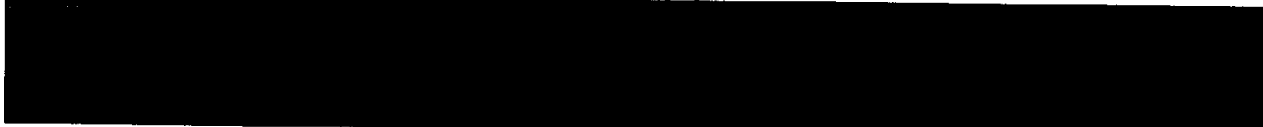


Table 11. ~~(S//REL)~~ Operational Status Reports. (U)



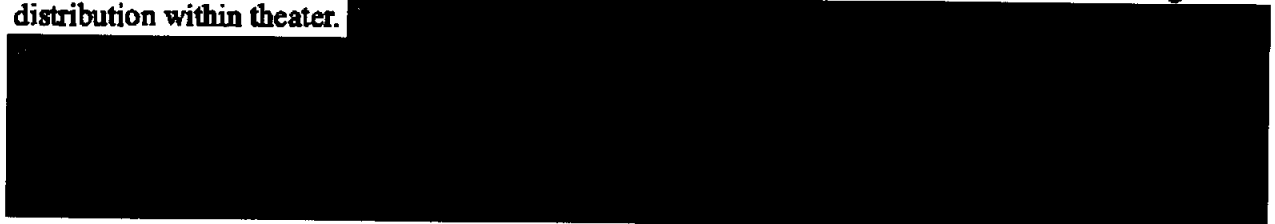
4.9. ~~(S//REL)~~ LINK 16 Formats.



5. ~~(S//REL)~~



5.1. ~~(S//REL)~~ Voice Reporting Architecture. The voice reporting architecture is based on a FDFR process followed by a voice summarization performed by the MWC (Figure 1.). The theater user is responsible for interfacing the theater conference with the CONUS conference and establishing voice distribution within theater.



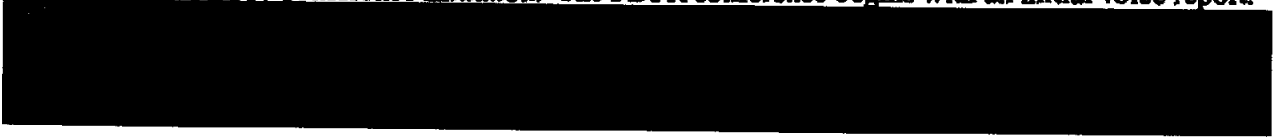
5.1.1. ~~(S//REL)~~



5.1.2. ~~(S//REL)~~



5.2. ~~(S//REL)~~ FDFR Conference Initiation. The FDFR conference begins with an initial voice report.



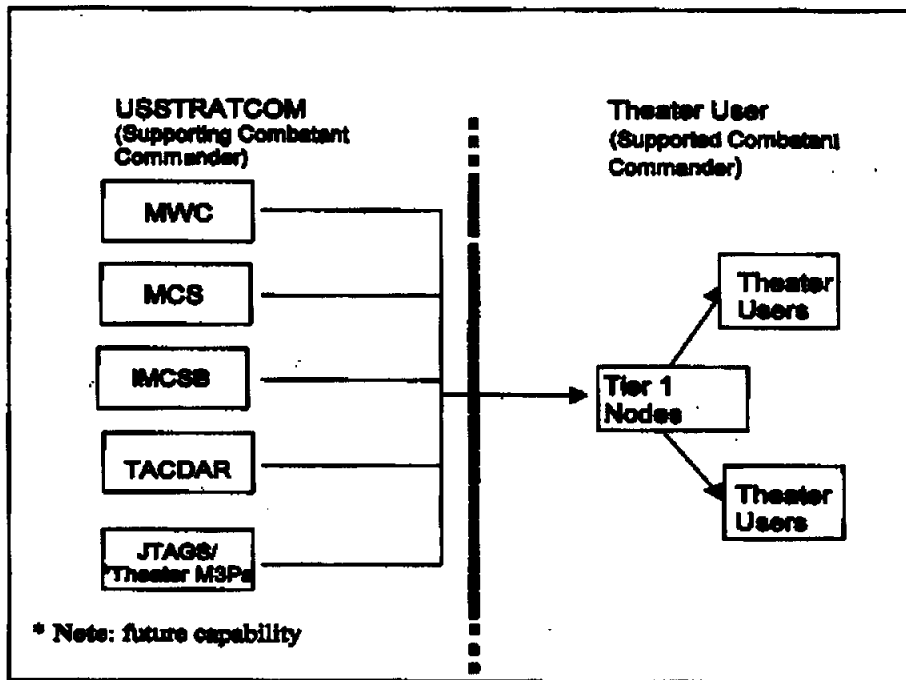


5.2.1. (S/REL) [REDACTED]

5.2.2. (S/REL) The TES element initiating the FDFR net will report using the applicable formats beginning with paragraph 5.6. [REDACTED]



Figure 1. (U) FDFR Conference. (U)



5.3. (U) Voice Summarization. The FDFR initial voice report is followed by a MWC query of the remaining TES elements for their report(s). The MWC must report the most accurate information to theaters during the summarization. The MWC is authorized to discount invalid information during the summarization and provide a clarification when appropriate.

5.4. (S/REL)

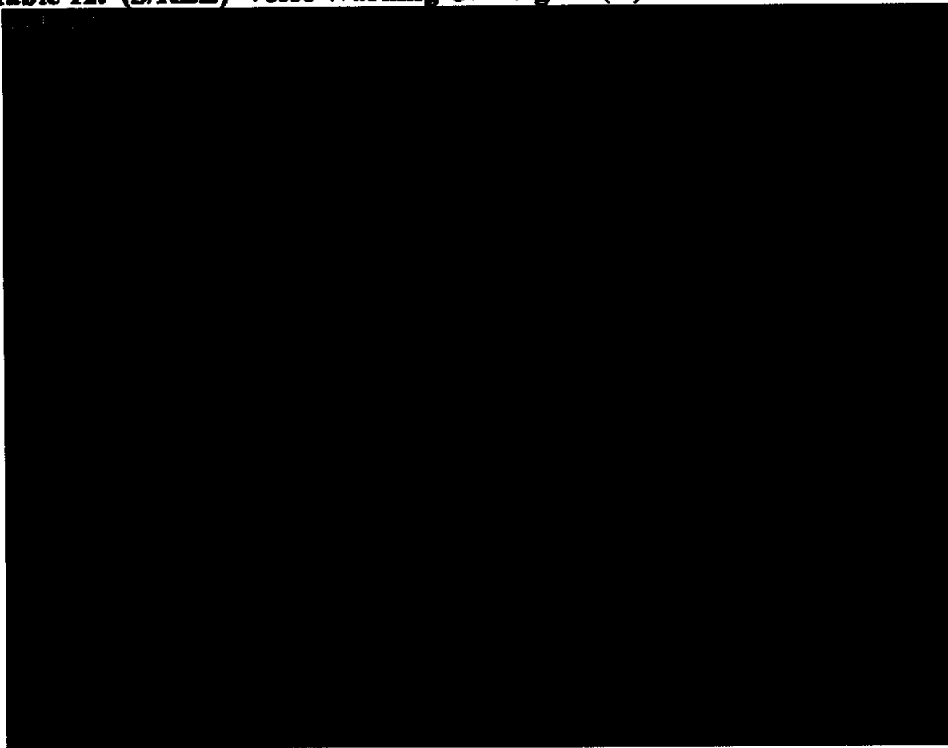


5.4.1. (S/REL)



5.5. (U) Call Signs. Use call signs listed in Table 12. to accomplish voice reporting and summarization:

Table 12. (S/REL) Voice Warning Call Signs. (U)



5.6. (U) Voice Report Formats. Use the following voice report formats, as required, to accomplish initial voice reporting and voice summarization.

5.6.1. (U) Initial Voice Report Format. The initiating TES element will activate the appropriate FDFR conference and immediately pass the following:

**This is (TES CALL SIGN), Standby for missile launch report. (Repeat 2 times)  
(Preface with "exercise, exercise, exercise" if required.)**

**(Single or Multiple) launch(es) from (nearest country of launch origin).**

**Azimuth: (xxx deg or xxx through yyy deg).**

**Areas/Sectors at risk are: (for USPACOM, provide Korean Common Grid Reference System (KCGRS) sectors only if requested by Tier 1 nodes or 'none', report 'none' for space launch events and strategic class events).**

**Earliest time of impact: (predicted time of earliest impact in hrs:min:sec Zulu, not required for space launch events or strategic class events).**

**NOTE: Upon completion of the initial voice report, the initiating TES element or the MWC will poll the appropriate FDFR conferees.**

5.6.2. (U) If a FDFR conferee fails to acknowledge when polled, the reporting TES element will reply "Nothing Heard" and continue polling the FDFR conferees. The method used to relay to missing conferees will usually be a formally identified alternate direct line. It is at the discretion of all FDFR conferees whether to remain on a conference throughout the duration of the event. Operational necessity may require FDFR conferees to abandon the FDFR in favor of more critical tasks during a TBM event. The MWC or TES element should expect no response from some users, particularly during real world events. In the event a Tier 1 user must drop from the FDFR net, the statement, "Break, Break, This is (Key Node) Out" will be used to inform the MWC that the Tier 1 user is leaving the net and has all necessary information to complete in-theater warning requirements.

5.7. (U) Voice Summarization Format. Immediately following the initial voice report, the initiating TES element will turn control of the FDFR net over to MWC by stating, **██████████ you now have the net.**" The MWC will accomplish the summary confirmation beginning with a poll of the applicable TES elements as follows:



**"This is (TES CALL SIGN). Concur, "Over"**

**"This is (TES CALL SIGN). (Report only those lines which are different from earlier reports), "Over"**

**"This is (TES CALL SIGN). Nothing to report, "Over"**

After all TES Elements have reported, the MWC will provide a summary, reporting the most accurate information.

**"This is [REDACTED] with a summary confirmation." (Preface with "exercise, exercise, exercise" as required)**

**(Single/Multiple) launch(es) from (nearest country of launch origin).**

**Azimuth: (xxx deg or xxx through yyy deg).**

**Areas/Sectors at risk are: (for USPACOM, provide KCGRS sectors only if requested by Tier 1 nodes or 'none'; report 'none' for space launch events and strategic class events).**

**Earliest time of impact: (predicted time of earliest impact in hrs:min:sec Zulu, not required for space launch events or strategic class events)."**

After the MWC completes the summary report, it will conduct a final poll of the Tier 1 nodes IAW paragraph 5.7.6.

**"(Tier 1 node callsign), how copy, over?"**

5.8. (U) Multiple Events. If additional events occur while the FDFR conference is in progress, the detecting TES element(s) will break in and state, **"Break, break. This is (TES CALL SIGN)"** and pass additional event information. The MWC will then proceed with the voice summarization.

5.9. (U) Canceled Events. In the event a TES element releases any data report including CEW or SAM/ABM events it did not intend to release, or otherwise determined was invalid or did not occur (False Reports and Non-Reportable Events only), the releasing TES element will use the following format.

**"This is (TES CALL SIGN). (Preface with "exercise, exercise, exercise" if required.) Cancel, Cancel, Cancel. (Single/Multiple or strategic missile) launch(es) from (nearest country of launch origin)."**

The MWC will then initiate the cancellation summary. MWC will poll the remaining TES elements as follows: **"This is [REDACTED] (TES CALL SIGN), Report, Over."**

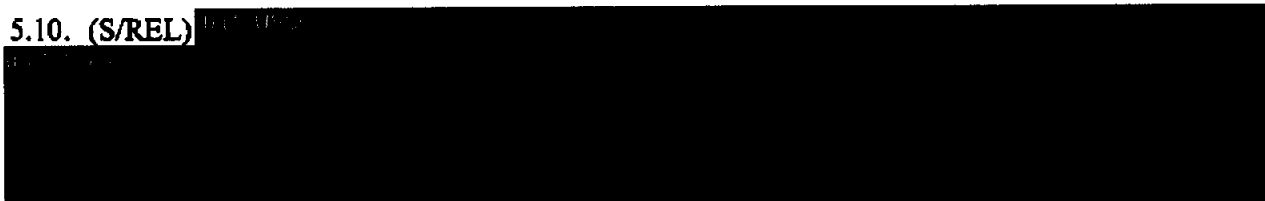
When polled by MWC, the TES element(s) will report: **"(TES CALL SIGN). All clear."**

After all the TES Elements have reported, MWC will provide a cancellation summary.

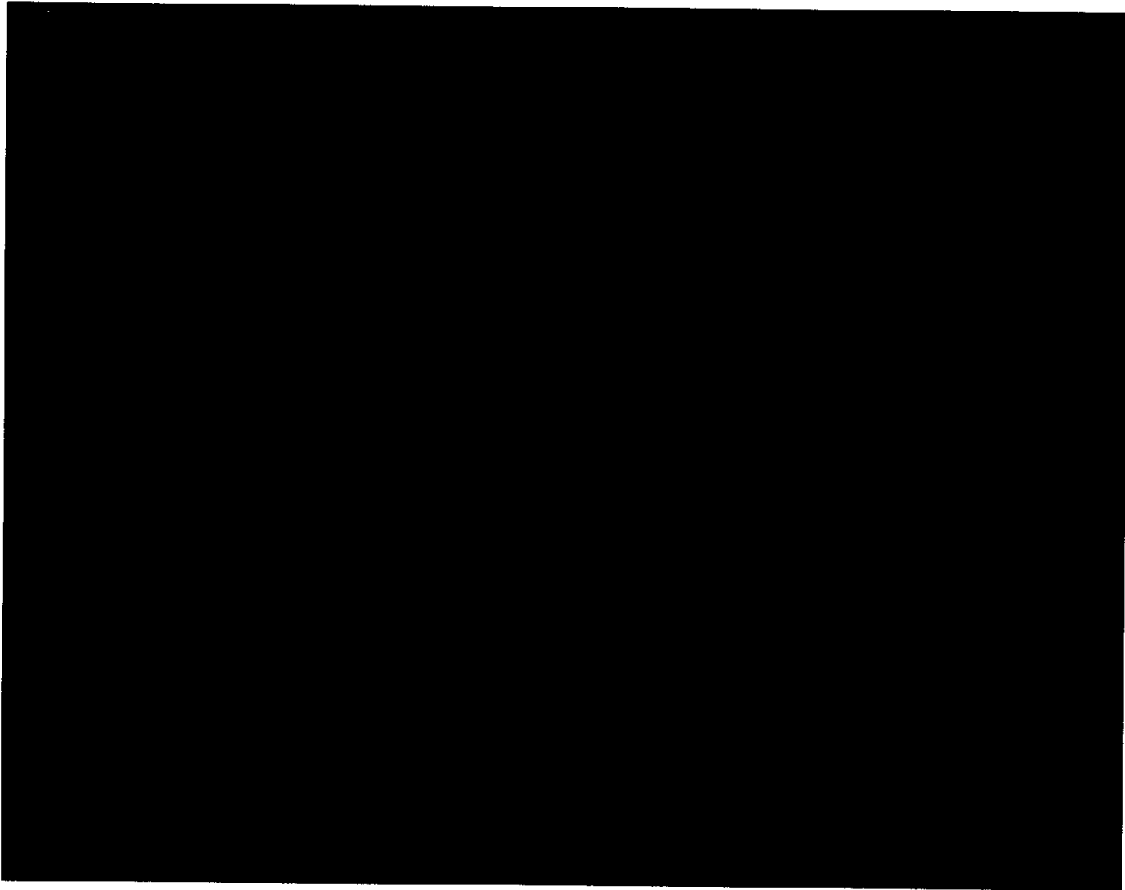
**"This is [REDACTED] (Preface with exercise, exercise, exercise if required.) Cancel, Cancel, Cancel". (Single or Multiple) launch(es) from (nearest country of launch origin)."**

After the cancellation summary the MWC will conduct a poll of the FDFR conferees as follows: **"(CALL SIGN), how copy, over?"**

5.10. (S/REL) [REDACTED]







5.11. (U) Missile Event Conference (MEC). While the FDFR conference is occurring, the CMOC Combined Command Center (CCC) will request activation of the MEC from the NMCC. Specific verbiage for reports is contained in reference (d). The purpose of this conference is to alert and inform command centers and senior authorities of potentially threatening events and convey AOR assessments. This conference also provides closure on the event(s) and eliminates the "verification" call the MWC used to make to the theater after completion of the FDFR conference. TES elements have no role in this conference.

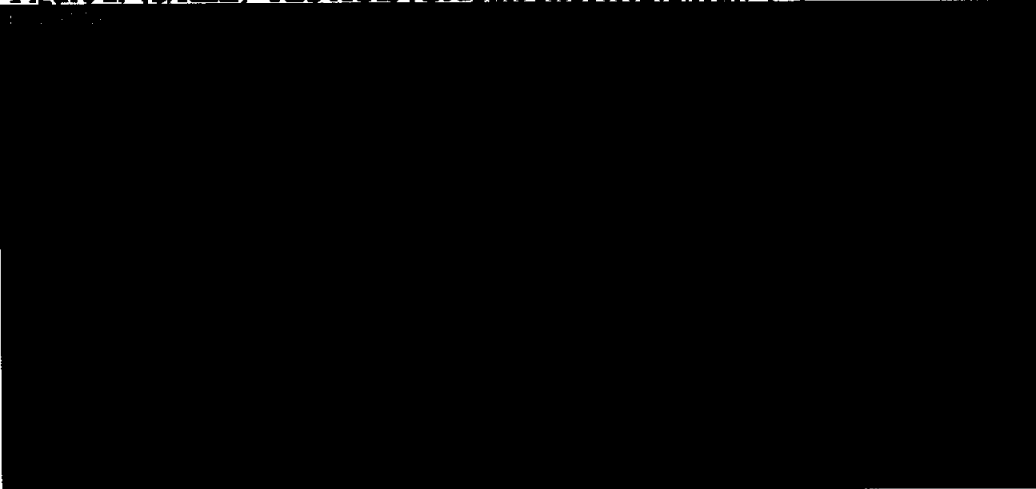
6. ~~(S//REL)~~ Area Of Interest Coverage.

6.1. ~~(S//REL)~~ AOI Definition. The AOIs were defined by determining which countries have a TBM launch capability and/or SW capability detectable by DSP.





Figure 2. (S/REL) TES AOIs (Graphic Representation). (U)



6.2. ~~(S/REL)~~ Reportable Missile Events. Missile types identified by USSTRATCOM/OP50 are TES reportable missile events. The TES elements will configure their systems to monitor the applicable AOIs per USSTRATCOM direction. ~~(S//REL)~~

6.3. ~~(S/REL)~~ Reportable Areas. The AOIs defined in Figure 2. are the standard locations for TES elements to release real-time warning messages on TBM, SW, and SEs. ~~(S//REL)~~

6.4. ~~(S/REL)~~ AOI Responsibilities. ~~(S//REL)~~

Additional AOIs may be added to support real-world taskings.

6.5. (U) AOI Management. USSTRATCOM/OP has overall TES AOI management responsibility. USSTRATCOM/OP50 staffs proposed changes to the AOI database (e.g., geographic areas and missile profiles) through the Profile Working Group (PWG). The MWC manages real-time AOI config-

uration changes to maintain TESCAP GREEN for each AOI. These changes are normally driven by scheduled and unscheduled outages. When a conflict or potential conflict situation develops within an AOR with known TBM threats, a USSTRATCOM OPOD will define specific relationships that may be authorized between the theater user and 14 AF (for SBIRS MCS) and ARSTRAT (for JTAGS). Through this relationship, the theater may request, or 14 AF/ARSTRAT will consider implementing MCS/JTAGS BSC support. Specific BSC options include Enhanced IR Coverage, CV, and Area Watch. Theater users should specify the desired effect they are looking for and allow the flexibility for 14 AF or ARSTRAT to determine which method of BSC achieves the desired effect. During MCS and JTAGS BSC support, the MWC will maintain TESCAP requirements outlined in paragraph 9.

6.6. ~~(S//REL)~~ Constant Vigilance (CV).

[REDACTED]

6.7. ~~(S//REL)~~ Area Watch.

[REDACTED]

6.8. ~~(S//REL)~~ Enhanced Coverage (EC).

[REDACTED]

6.9. ~~(S//REL)~~ Missile profile process. Due to the dynamic mission requirements of TMW and the constantly changing threat, the profile updating process must be responsive and timely. New profile requirements must be quickly identified and implemented to meet theater user TMW requirements. Once a new profile is ready for installation, it must be installed without delaying it to wait for other required software modifications.

[REDACTED]

[REDACTED] The PWG operates IAW an established charter, which outlines all roles and responsibilities for each member of the PWG.

7. ~~(S/REL)~~ TES Capability (TESCAP) and Operations Capability (OPSCAP). TESCAP is an overall assessment of TES ability to meet TMW operational requirements. [REDACTED]

Figure 3. (S/REL) TESCAP and OPSCAP. (U)



7.1. (U) TESCAP and OPSCAP Color Codes. Both TESCAP and OPSCAP are described by color codes.

7.1.1. (S/REL) [REDACTED]

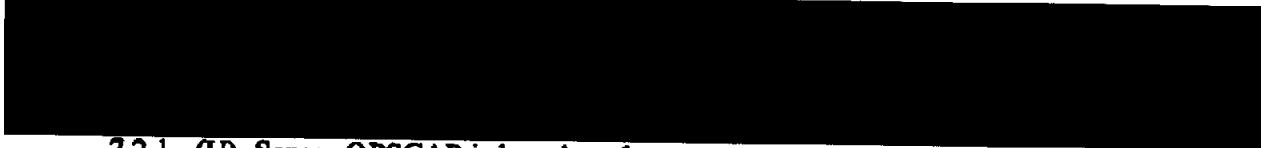
7.1.2. (S/REL) [REDACTED]

7.1.3. (S/REL) [REDACTED]

7.2. ~~(S/REL)~~ Sensor OPSCAP and DSP Theater Satellite Capability (SATCAP). [REDACTED]

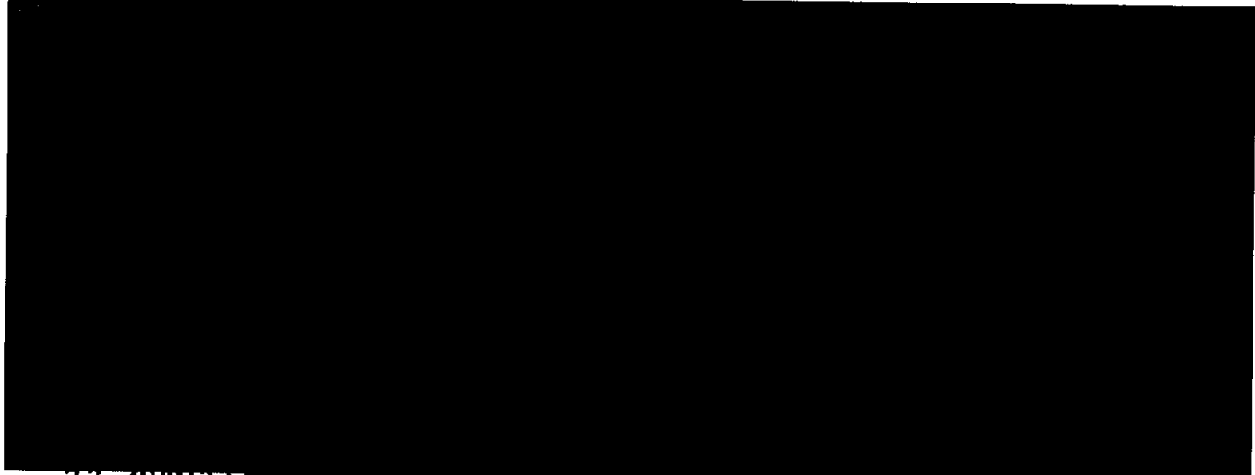
[REDACTED]

Table 13. (S//REL) DSP SATCAP. (U)



7.2.1. (U) Sensor OPSCAP is based on the system receiving quality data from a sufficient number of sensors to achieve the accuracies stated in system specifications. Additionally, for determination of AOI OPSCAP status ratings, 100 percent stereo coverage of an AOI is necessary for an AOI to be considered OPSCAP green. MCS can use Minimum Detectable Signal (MDS) instead of SATCAP to report AOI OPSCAP. The MDS in a given AOI is compared to the closeout threshold of the minimum threat missile, to effectively determine a real-time, automatic, AOI-specific SATCAP.

Table 14. (S//REL) Sensor OPSCAP. (U)



7.3. (S//REL)



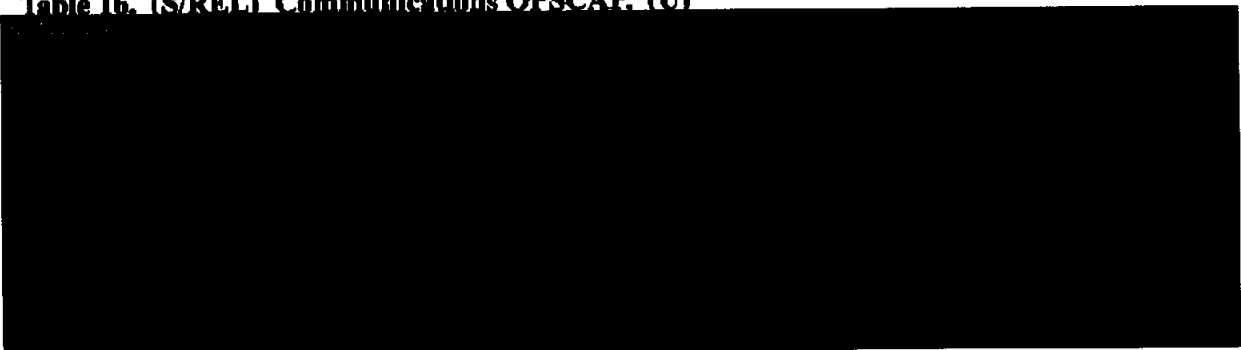
7.4. (U) Processor. Status is based on the processor having the capability to process data from mission events and produce a warning report.

Table 15. (S//REL) Processor OPSCAP. (U)



7.5. ~~(S//REL)~~ Communications. [REDACTED]

Table 16. (S//REL) Communications OPSCAP. (U)

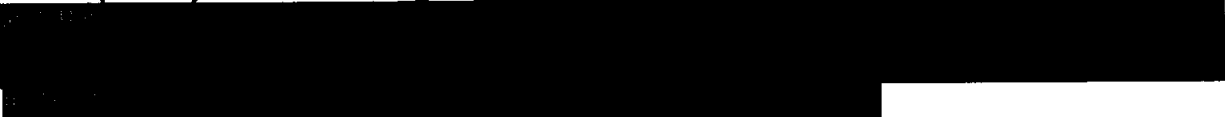


7.6. (U) OPSCAP Reporting.

7.6.1. (U) Outages. When an OPSCAP change occurs which exceeds, or is expected to exceed 2 minutes, TES elements will immediately report the outage, cause, and estimated time of return to operation (ETRO) to the MWC and their respective component operations centers. Outages not expected to exceed 2 minutes are not reported. Information about any ongoing outage lasting longer than 2 minutes in duration is classified and must be reported by secure means. Upon termination, an outage generally becomes unclassified. The MWC will report the overall TES capability to the affected theater(s). When the outage no longer exists, the TES element will immediately notify the MWC and its respective component operations centers of the change in OPSCAP status.

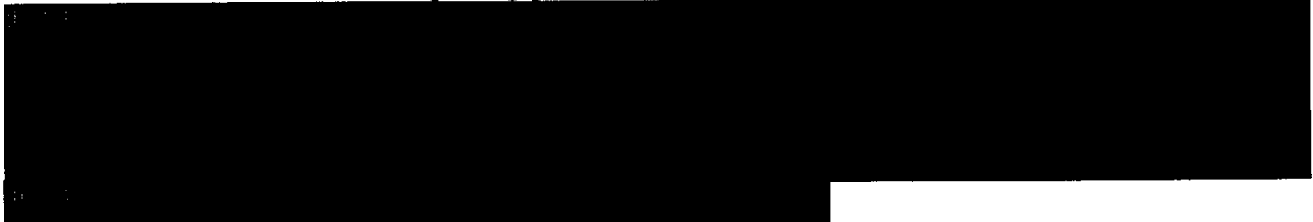
7.6.2. (U) Scheduled Outages. The TES element crew commander must obtain approval before performing any maintenance that will degrade its site OPSCAP. Site personnel will contact the MWC and their respective component operations centers for verification and final approval of scheduled outages 30 minutes and 5 minutes prior to outage start time. If the MWC disapproves the downtime (e.g., to maintain TESCAP coverage), an attempt will be made to reschedule as soon as possible. If approved, the site may be recalled from the scheduled downtime when the TES element's coverage is required. Upon outage completion, TES elements immediately notify the MWC and its respective component operations centers of the change in OPSCAP status.

7.6.3. ~~(S//REL)~~ Broadcast Outages. [REDACTED]



8. ~~(S//REL)~~ TES Coverage Requirements. [REDACTED]

The TES elements will notify the MWC and their respective component operations centers of individual OPSCAP reporting per AOI or area within system processing. [REDACTED]



8.1. (U) TES Maintenance/Downtime. The TES elements are required to forecast downtimes and provide this information to MWC. For MCS, this input comes from 2 SWS via the Monthly Maintenance Schedule (MMS). For JTAGS, this comes from ARSTRAT. The TACDAR downtime notifications come directly from TACDAR. The MWC consolidates and de-conflicts inputs, maintains a master schedule and has the responsibility to approve/disapprove the schedule. Real-time requests are worked directly with the MWC.

8.2. (U) The MWC is responsible for managing overall TES coverage to ensure theater warning is available, and can modify the maintenance downtimes to ensure TESCAP remains GREEN whenever possible. The CMOC CCC is responsible to notify USSTRATCOM/OP and applicable GCCs with any overall TES coverage degradations. Each TES element is required to notify the MWC and their respective component operations centers 30 minutes and 5 minutes prior to scheduled downtime.

9. ~~(S//REL)~~ Situation Report (SITREP). Each TES element will submit a SITREP covering the previous 24-hour period to USSTRATCOM/OP50 and the USSTRATCOM Nuclear Operations C2 Division (OP13). [REDACTED]

9.1. (U) Subject. The subject is: (UNIT) SITUATION REPORT FOR THE PERIOD XX AAAA Z MON YY TO XX AAAA Z MON YY (XX is day, AAAA is Zulu time, and MON YY is the month and year).

9.2. (U) Statement. Include the following statements: "All paragraphs and sub-paragraphs in this report are classified SECRET unless otherwise indicated. Any information extracted from this report must be marked in accordance with current security guidance." (NOTE: The TACDAR SITREP will be classified at a higher level than SECRET.)

9.3. ~~(S//REL)~~ Classification. [REDACTED]

9.4. (U) Software. List the current software version.

9.5. ~~(S//REL)~~ Flights. [REDACTED]

9.6. ~~(S//REL)~~ SITREP. [REDACTED]

9.6.1. ~~(S//REL)~~ Part 1. TBMs. [REDACTED]

9.6.2. ~~(S//REL)~~ Part 2. Slow Walkers. [REDACTED]

9.6.3. ~~(S//REL)~~ Part 3. SEs. [REDACTED]

9.6.4. ~~(S//REL)~~ Part 4. False Report or Non Reportable Release. [REDACTED]

9.6.5. ~~(S//REL)~~ Part 5. Areas of Interest.

9.6.5.1. ~~(S//REL)~~ AOI Status. [REDACTED]

9.6.5.2. ~~(S//REL)~~ CV/Area Watch Operations/Enhanced IR Coverage [REDACTED]

9.6.6. ~~(S//REL)~~ Part 6. System Status.

9.6.6.1. ~~(S//REL)~~ Sensor Input. [REDACTED]

9.6.6.2. ~~(S//REL)~~ Processor Status. [REDACTED]

9.6.6.3. ~~(S//REL)~~ Dissemination Connectivity Status. [REDACTED]

9.6.7. ~~(S//REL)~~ Part 7. Remarks. [REDACTED]

**10. (U) TES Exercise Support.** Supporting theater exercises is critical to support USSTRATCOM internal and external training requirements. USSTRATCOM/OP503 will be the focal point for all TMW exercise support including simulation support through the Missile Defense Space Tool (MDST). USSTRATCOM/OP503 will coordinate all exercise tasking, and exercise scripts, and will ensure the GOC Space Ops Watch is prepared as the real-time POC for short notice exercise issues such as changes, cancellations or feedback. For TMW exercises including SEW exercises involving the MWC as a participant, an after action report will be generated by the theater exercise controller. All TES exercise participants will provide feedback. A final report will be provided to all TES participants.

10.1. (U) Exercise and Test Design. The TES elements will use actual operational hardware, software and procedures to the maximum extent possible for exercises and tests. For each exercise or test requiring TES support, USSTRATCOM/OP503 will determine if the TES processor elements or a simulation device will support the exercise or test, taking into account the requirements of the requesting agency. USSTRATCOM/OP503 will provide the MWC and all participating TES elements or simulation organizations the missile launch scenario, the voice reporting requirements and templates (if different than real world).

10.1.1. (S//REL) [REDACTED]



10.1.2. (S/REL) [REDACTED]

10.2. ~~(S/REL)~~ Exercise and Test coordination. [REDACTED]

[REDACTED] IBS-S and IBS-I are the operational broadcast systems to deliver warning to theaters. All TBM exercise traffic must be coordinated through USSTRATCOM/OP503 using the TES Exercise Support Request message at Attachment 3 at least 45 days prior to the start of the exercise scenario. [REDACTED]

10.3. (U) USSTRATCOM/OP503 will determine which individual TES elements will support the request. USSTRATCOM/OP503 will coordinate with the IBS Support Office (IBSSO) to broadcast exercise events. If the research and development or exercise channels are desired, requesters will liaison directly with the IBSSO. Additionally, USSTRATCOM/OP503 will periodically release a message listing pending exercises. USSTRATCOM/OP503 will release a TES support message to Address Information Group (AIG) 232 providing exercise details no later than 21 days prior to the start of the exercise scenario. Additionally, each TES element or simulation agency participating in the exercise is required to notify the MWC 30 minutes and 5 minutes prior to injecting exercise data. TES elements will inform the MWC which exercise they are supporting, number and type of missiles, dissemination systems to be used, time of exercise injections, and voice reporting (if required), and time of exercise injections.

10.4. (U) Exercise Methodology. The TES elements must keep exercise and real-world data separate and clearly identified. The MWC will normally have the theater representatives displays set to receive real-world data. Upon notification from the TES elements of an exercise, the MWC will ensure the Processing and Display Subsystem Migration (PDS-M) is configured to receive real-world and exercise data. To the maximum extent possible, the injecting TES element will be responsible for initiation of the FDFR.

11. ~~(S/REL)~~ TES Operational Data Collection and Evaluation Process. The purpose of TES operational evaluation is to improve TES support to theater users. The USSTRATCOM Combat Systems Branch (PR126) has established the standard for TES operational evaluation and is the office of primary responsibility for the execution of TES operational evaluations. [REDACTED]

12. ~~(S//REL)~~ TES Measures of Effectiveness. [REDACTED]

12.1. (S//REL) [REDACTED]

12.2. (S//REL) [REDACTED]

12.3. (S//REL) [REDACTED]

12.4. (S//REL) [REDACTED]

12.5. (S//REL) [REDACTED]

12.6. (S//REL) [REDACTED]

12.7. (S//REL) [REDACTED]

12.8. (S//REL) [REDACTED]

12.9. (S/REL) [REDACTED]

12.10. (S/REL) [REDACTED]

13. ~~(S/REL)~~ DELOGs. A DELOG is the process of reviewing post mission data to look at past events or additional IR data not previously observed or reported. [REDACTED]

13.1. ~~(S/REL)~~ DELOG Categories. DELOGs are divided into two categories: Emergency and Routine.

13.1.1. ~~(S/REL)~~ Emergency DELOG requests are those [REDACTED]

13.1.2. (S/REL) Routine DELOG requests are those [REDACTED]

13.2. ~~(S/REL)~~ Tasking Authority. [REDACTED]

13.3. (U) DELOG Request Format. Requests will include the following information:

13.3.1. (U) Type of Event. A brief description of what is being looked for such as reentry, missile launch, aircraft accident, etc.

13.3.2. (U) DELOG Type. Emergency or routine.

13.3.3. (U) DELOG Time Window. Each request should be in a 30-minute window.

13.3.4. (U) Location. Lat/Long of event.

13.4. (U) DELOG Result Format. Results will be reported in the following format:

13.4.1. (U) DELOG Result. Positive or negative.

13.4.2. (U) DELOG Event Date Time Group (DTG).

13.4.3. (U) DELOG Event Location. Lat/Long.

13.4.4. (U) Satellite(s) (Flight Number) detecting event and maximum intensity detected on each.

13.4.5. (U) Report if motion was detected on each satellite.

13.4.6. (U) Comments. Any pertinent comments associated with the DELOG request.

14. (U) **Reviews.** This publication will be reviewed biannually and updated, as required, by USSTRAT-COM/OP50.

~~SECRET~~

Major, USAF

Command Secretariat

**Attachment 1**

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION (U)**

***References***

- (a) Tactical Broadcast Users Guide, July 2002
- (b) Integrated Broadcast Service Producer Guide, 1 August 1999
- (c) UI 10-23, (S) Integrated Tactical Warning and Attack Assessment (ITW/AA) Procedures and System Description (Missile and NUDET Warning Only) (U), 1 June 2000
- (d) Emergency Action Procedures of the Chairman of the Joint Chiefs of Staff Volume VI, Emergency Conferences for Tactical Warning and Attack Assessment

***Abbreviations and Acronyms*** (Unclassified unless marked otherwise.)

**14 AF**—14th Air Force  
**14AF/AOC**—14th Air Force Air Operations Center  
**2 SWS**—2nd Space Warning Squadron  
**AB**—MWC Call Sign  
**ABM**—Anti-Ballistic Missile  
**AFB**—Air Force Base  
**AFSPC**—Air Force Space Command  
**AIG**—Address Information Group  
**AOI**—Area of Interest  
**AOR**—Area of Responsibility  
**ARSTRAT**—Army Strategic Command  
**ASAP**—as soon as possible  
**ATACMS**—Army Tactical Missile System  
**AUS**—Australia  
**BSC**—Battle Space Characterization  
**CAN**—Canada  
**CCC**—Combined Command Center  
**CDRUSSTRATCOM**—Commander, USSTRATCOM  
**CEW**—Combined Early Warning  
**CI**—Correlation Index  
**CMOC**—Cheyenne Mountain Operations Center

**CONUS**—Continental United States

**CTT**—Commanders' Tactical Terminal

**CV**—Constant Vigilance

**DSP**—Defense Support Program

(S) 

**DTG**—Date Time Group

**ELINT**—Electronic Intelligence

**ESC**—Electronic Systems Center

**ETRO**—Estimated Time of Return to Operation

**FDFR**—First Detect First Report

**FROG**—free rocket over ground

**ft**—feet

**GBR**—Great Britain

**GCC**—Geographic Combatant Commanders

**GCN**—Ground Communications Network

**GOC**—Global Operations Center

**HHQ**—Higher Headquarters

**HQ**—Headquarters

**IAW**—in accordance with

**IBS**—Integrated Broadcast Service

**IBS-I**—Integrated Broadcast Service-Interactive (formerly TIBS)

**IBS-S**—Integrated Broadcast Service-Simplex (formerly TDDS)

**ICBM**—Intercontinental Ballistic Missile

**IMCSB**—Interim Mission Control Station Backup

**IR**—Infrared

**ITW/AA**—Integrated Tactical Warning and Attack Assessment

**JTAGS**—Joint Tactical Ground Station

**JTAGS-CEN**—Joint Tactical Ground Station-Central Command

**JTAGS-COS**—Joint Tactical Ground Station-Colorado Springs Contingency Unit

**JTAGS-EUR**—Joint Tactical Ground Station-European Command

**JTAGS-PAC**—Joint Tactical Ground Station-Pacific Command

**JTAGS-TX**—Joint Tactical Ground Station-Texas (Ft Bliss) Contingency Unit

**KCGRS**—Korean Common Grid Reference System  
**KM**—Kilometer  
**KTs**—knots  
**Kw/S**—Kilowatts per Steridian  
**Lat/Long**—Latitude/Longitude  
**M3P**—Multi-Mission Mobile Processor  
**MATT**—Multi-Mission Advanced Tactical Terminal  
**MCS**—Mission Control Station  
**MDS**—Minimum Detectable Signal  
**MDST**—Missile Defense Space Tool  
**MEC**—Missile Event Conference  
**MOE**—Measures of Effectiveness  
**MWC**—Missile Warning Center  
**NASIC**—National Air and Space Intelligence Center  
**NNSOC**—Naval Network and Space Operations Command  
**NORAD**—North American Aerospace Defense Command  
**NZL**—New Zealand  
**OPORD**—Operations Order  
**OPSCAP**—Operational Capability  
**Pd**—probability of detecting  
**POC**—Point of Contact  
**POI**—Period of Interest  
**PWG**—Profile Working Group  
**SAM**—Surface-to-Air Missile  
**SATCAP**—Satellite Capability  
**SBIRS**—Space-Based Infrared System  
**SD**—Strategic Command Directive  
**SE**—Special Events (fires, explosions, and other events of interest)  
**SENSOREP**—Sensor Report  
**SEW**—Shared Early Warning  
**SITREP**—Situation Report  
**SL**—Space Launch

**SLBM**—Submarine-launched Ballistic Missile  
**ST**—Subscriber Terminal  
**SW**—Slow Walker  
**TAC**—Threat Area Coverage  
**TACDAR**—Tactical Detection and Reporting  
**TBM**—Theater Ballistic Missile  
**TDDS**—Tactical Related Applications (TRAP) Data Dissemination System  
**TDIMF**—Tactical Data Inter-computer Message Format  
**TES**—Theater Event System  
**TESCAP**—Theater Event System Capability  
**TIBS**—Tactical Information Broadcast Service  
**TMW**—Theater Missile Warning  
**TRAP**—Tactical Related Applications  
**TRS**—Tactical Receive Suite  
**UFO**—UHF Follow-on  
**UHF**—ultra high frequency  
**UK**—United Kingdom  
**U.S.**—United States  
**USCENTCOM**—United States Central Command  
**USEUCOM**—United States European Command  
**USPACOM**—United States Pacific Command  
**USSOUTHCOM**—United States Southern Command  
**USSTRATCOM**—United States Strategic Command  
**USSTRATCOM/OP**—Global Operations Directorate  
**USSTRATCOM/OP13**—Nuclear Operations C2 Division  
**USSTRATCOM/OP50**—Space Enhancement Division  
**USSTRATCOM/OP503**—Missile Warning Branch  
**USSTRATCOM/PR126**—USSTRATCOM Combat Systems Branch



Attachment 2

SAMPLE SITUATION REPORT MESSAGE FORMAT (U)

[REDACTED]

MSGID/SITREP/REPORTING UNIT/JULIAN DAY/MONTH//

REF/A//

PERIOD/TIME FROM/TO:DDTTTTZ/DDTTTTZMMMMYR//

HEADING/OWN SITUATION//

[REDACTED]

GENTEXT/GENERAL/(U-FOUO)/

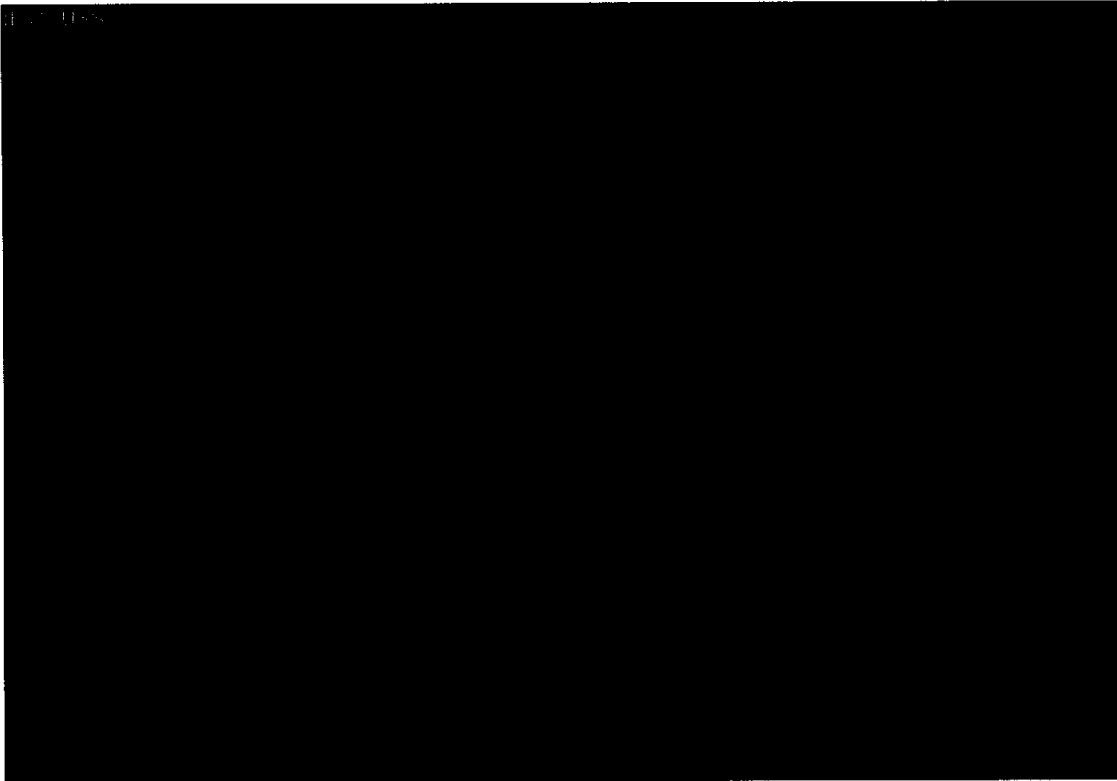
1. SOFTWARE VERSION: CURRENT SOFTWARE VERSION (AS APPLICABLE)//

[REDACTED]

GENTEXT/SITUATION/(U-FOUO)/NSTR//

GENTEXT/OPERATIONS/(SECRET/REL TO USA/AUS/CAN/GBR//X3)/CURRENT OPERATIONS STATUS, SCHEDULED PMI'S AND RECALL TIMES, AREAS COVERED ETC:

**SURVIVABLE MISSILE WARNING COVERAGE EXAMPLE:**



1. DEFCON STATUS/CURRENT DEFCON //

2. FORCE PROTECTION/

A. FPCON STATUS/CURRENT FPCON//

B. INFOCON STATUS/CURRENT INFOCON//

3. OPSCAPS/SYSCAPS/

A. TAC OPSCAP DEGRADATIONS

TAC	STATUS	START/STOP	TOTAL	REMARKS
-----	--------	------------	-------	---------

LIST DEGRADATIONS OR NSTR//

B. SITE OPSCAP DEGRADATIONS

SITE STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR //

C. [REDACTED]

SYSTEM STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR //

D. AOI OPSCAP DEGRADATIONS

AOI STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR//

E. SYSCAP

SYSCAP STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR//

4. SPACE SEGMENT/

A. SENSOR OPSCAP DEGRADATIONS [REDACTED]

STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR//

5. GROUND SEGMENT/

A. CONTACT SUMMARY/

PROGRAM TOTAL SUPPORTS LOST FAILED REMARKS/  
NSTR//

B. DISSEMINATION SYSTEM DEGRADATIONS

[REDACTED]

STATUS START/STOP TOTAL REMARKS  
LIST DEGRADATIONS OR NSTR//

C. BACK-UP SYSTEM STATUS

SYSTEM STATUS START/STOP TOTAL REMARKS  
LIST STATUS OF ALL BACK-UP SYSTEMS

6. ANOMALIES/ANY ANOMALIES//

7.

[REDACTED]

8. EVENTS/

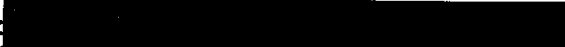
A. STRATEGIC MISSILE EVENTS. [REDACTED]

[REDACTED]

[REDACTED]



B. THEATER MISSILE EVENTS:



C. UNCORRELATED SPACE OBJECTS.

[REDACTED]

D.

[REDACTED]

E. SLOWWALKER EVENTS.

[REDACTED]

[REDACTED]

[REDACTED]

F. SPECIAL EVENTS

[REDACTED]

[REDACTED]

[REDACTED]