DEPARTMENT OF THE NAVY

~~CONFIDENTIAL~~ UNCLASSIFIED

UNITED STATES ATLANTIC FLEET
HEADQUARTERS OF THE COMMANDER IN CHIEF
NORFOLK, VIRGINIA 23511 5210

5800
Ser N02L/C 00710
18 NOV 1992

~~CONFIDENTIAL~~--Unclassified upon removal of enclosure (19)

THIRD ENDORSEMENT on RADM , USN, Report of Court of Inquiry of 23 Oct 92

From: Commander in Chief, U.S. Atlantic Fleet
To: Judge Advocate General

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

1. Forwarded.

2. This Court of Inquiry (COI) closely and thoroughly examined the training and qualifications of the individuals whose conduct was part of the chain of events which led to the tragic and mistaken firing of the Seasparrow missiles. My review of the information developed by the COI convinces me that:

a. There was a significant breakdown in the proficiency training of the enlisted personnel who operated the NATO Seasparrow system. This occurred because of a combination of factors: The EMO, who was assigned oversight by the ship's regulation, believed such an operational matter was more properly the responsibility of the OPSO (thus there was no oversight); the senior FC billet was gapped; and the leading chief was lackadaisical about his training responsibilities.

b. The process of qualifying officers as TAO and SWC was taken seriously by the chain of command. The inadequacy in the process was that, because it was not sufficiently standardized, there was an element of randomness in the information imparted to each officer during his period of qualification. The primary indicators of this deficiency are the failure to insist that TAOs or SWCs have formal schooling, and the over-reliance on U/I watch standing as an educational tool. This non-standard training and qualification process failed to produce a chain of command which could communicate clearly and in standard terminology with the TAS operator. This weakness, as well as an absence of other pipeline training, afflicted the USS SARATOGA Operations Department during the period at issue. Although

8802988

ACC B6

~~CONFIDENTIAL~~

UNCLASSIFIED

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

the COI focusses on a lack of aviation officer pipeline training, the record does not support a conclusion that this is only a CV or aviators' problem.

3. The relationship between the TAO and the Commanding Officer is also of concern. Although it was not a factor in the tragic events of 2 October, the practice of routinely delegating unqualified weapons release authority to the TAO is unnecessary and dangerous. While the statements of both the Commanding Officer and the TAO reveal an <u>expectation</u> that, absent an emergency situation, the Commanding Officer would be contacted before any weapons firing, such a significant reservation of command authority must be <u>specified</u>.

4. Accountability of the Commanding Officer is premised on his ultimate responsibility for the training and qualification of the personnel involved in this event. While he has a right to rely on his department heads and other subordinates to some extent, the Commanding Officer must answer for the serious training and qualification deficiencies described in this inquiry. A properly trained TAS should have recognized one of the many available indications that he was in an exercise (COI exhibit 166 "...from his seat [the TAS] could view three independent sources of information which confirmed that we were not in a hostile environment"), or might at least have double checked his understanding that an actual threat was imminent. A properly trained SWC or TAO should have recognized the significance of the "arm and tune" terminology. Better training would have allowed for clearer communication on these crucial issues between the TAS and the SWC, and so on. While the specific cause and effect relationship between the training deficiencies and the tragic chain of events on 2 October is to some extent conjectural, the responsibility of the Commanding Officer for that training is not. B6

5. The Operations Officer was significantly closer to this process, and he was in a better position to oversee it directly than was the Commanding Officer. He is clearly accountable, and

B6

ALL B6

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

B6

6. COMNAVAIRLANT, by copy of this endorsement is directed to review the process of training and qualifying CDC personnel in all CV/CVNs within the Atlantic Fleet. COMNAVAIRLANT is to report back to CINCLANTFLT on the existing situation within Atlantic Fleet carriers and on measures implemented to minimize the possibility of similar incidents in the future. The process of certifying carriers as ready for advanced training should also receive special attention.

7. Atlantic and Pacific Fleet type commanders have been directed to review operational and maintenance procedures to prevent inadvertent firing of weapons systems. Specific recommendations will be forwarded to the Chief of Naval Operations in the near future.

8. CINCLANTFLT will take responsibility for recommendations 13-24. We will review them in detail, then as appropriate, implement, coordinate implementation with other activities, or forward them to the cognizant activity. Upon completion, a final report of actions accomplished will be issued.

9. The Judge Advocate General is requested to take action on recommendation 32.

10. Commander Cruiser Destroyer Group Eight, by copy of this endorsement, is directed to:

a. B6

b. Verify and report on implementation by USS SARATOGA of recommendations 1-12.

11. Subject to the foregoing, the proceedings, findings of fact, opinions and recommendations of the Court of Inquiry, as modified by prior endorsers are approved.

All B6

CONFIDENTIAL

DEPARTMENT OF THE NAVY

COMMANDER IN CHIEF
UNITED STATES NAVAL FORCES, EUROPE
FPO NEW YORK 09510-0151

5800
Ser 00/C
6 November 1992

CONFIDENTIAL -- Unclassified upon removal of enclosure (19)

SECOND ENDORSEMENT on RADM USN, Report of Court of Inquiry of 23 Oct 92

From: Commander in Chief, U.S. Naval Forces Europe
To: Judge Advocate General
Via: Commander in Chief, U.S. Atlantic Fleet

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

1. The report of investigation, received by CINCUSNAVEUR on 1 November 1992, is forwarded. The findings of fact, opinions, and recommendations of the Court, as modified and augmented by the Convening Authority, are approved.

2. This mishap raises an additional issue that was not covered in either the Court of Inquiry or by COMSIXTHFLT. It is the issue of danger inherent in maintaining live ordnance in launchers aboard ship and carrying it aboard aircraft while not engaged in combat operations or potential combat operations. It is my opinion that a Navy-wide review of this matter is appropriate. Within U.S. Naval Forces Europe, I intend to immediately commence a review of each weapon type/weapon system to determine if adequate physical devices exist to prevent accidental firing or firing without proper authorization. Where such devices do exist, we will examine whether the procedures for their use and security are sufficient to prevent unintended firing. If such devices do not exist for a given weapon/weapons system, specific regulations will be promulgated regarding when they may, or may not, be loaded into or on firing systems and platforms. I recommend a Navy directive be issued on this subject and that all new weapons and weapons systems be designed with such devices installed.

3. Aside from the direct human failures detailed in the report of the Court, there are numerous systemic deficiencies noted. Many of these, to a greater or lesser extent, contributed to creating the environment in which this disaster could occur. Many of the Court's recommendations are intended to remedy these systemic deficiencies. These recommendations cover a wide range

ALL B6

CONFIDENTIAL

of topics such as the CV Operations Department organization, the need for standardized terminology and checklists, pipeline training for officers and enlisted leaders, improving school curricula, and manning of NSSMS and TAS work centers. Since these relate to management matters and technical specialties not under my cognizance, I urge that these recommendations be given full and complete consideration. Not all will turn out to be the perfect solution to improving performance and safety in the operation of the NSSMS or CV Operations Department, but each will point the way toward resolution of problems that contributed in one way or another to the tragedy the court was charged to investigate.

4. The report of the Court of Inquiry contains testimony which makes it clear that renewed emphasis on the total responsibility of division officers and leading chief petty officers for their subordinates' operational proficiency, as well as maintenance performance, is worthy of renewed emphasis in all leadership training and in our Navy's day-to-day operations. While the failures noted in this regard may be isolated and infrequent, and were not punishable as causing this mishap, the evidence is clear that a different approach by key individuals might well have created an environment where such a mishap would be much less likely to take place. I want to be clear, the majority - the vast majority - of our officers and senior petty officers are outstanding leaders with a complete and comprehensive view of their duties. We must strive to bring all aboard with this concept and require performance that demonstrates such an approach.

5. I wish to join Vice Admiral in expressing my deep regret and sympathy to the crew of MUAVENET, their families, and the people of Turkey for this tragic accident. In accordance with Procedure B of NATO Standard Agreement (STANAG) 1179, a flag officer from Turkey observed the U.S. Court of Inquiry, and a USN flag officer similarly attended the Turkish Board inquiring into the damage to MUAVENET. The Turkish flag officer participation enabled his Navy to see that this mishap was not the result of any deliberate or criminal act and that the most solemn process available to our Navy was employed to thoroughly investigate the firing. I also requested an immediate and thorough effort to contact the families of the victims in Turkey to facilitate claims settlement at the earliest opportunity. This initiative is well underway thanks to the personal assistance and direction of the Judge Advocate General.

6. As noted by the First Endorsement, I will convene, as CINCSOUTH, a Combined Commission in accordance with procedure C of NATO Standard Agreement (STANAG) 1179. This will commence in mid-November 1992 at AFSOUTH Headquarters in Naples. The President of the USN Court of Inquiry, RADM Guilbault and three

ACL 136

CONFIDENTIAL

Turkish flag officers will serve on the Commission, along with two other flag officers from the U.S. The Combined Commission will prepare a summary of the two reports of investigation. Its report shall be submitted to me as CINCSOUTH and then forwarded to the Departments (Ministries) of Defense of the U.S. and Turkey.

7. I also wish to commend the highly professional performance of the Board Members, Naval Judge Advocates, and Legalmen who reported immediately to SARATOGA and commenced the investigation without delay. Their thoroughness, professionalism, and dedication to duty resulted in this comprehensive report being delivered to the Convening Authority within three weeks of the accident.

Copy to:
COMSIXTHFLT
Navy JAG
RADM (

All B6

C[redacted]AL

DEPARTMENT OF THE NAVY

UNITED STATES SIXTH FLEET
FLEET POST OFFICE
AE 09501-6002

5800
Ser 00/C024
1 Nov 92

C[redacted]AL -- Unclassified upon removal of enclosure (19)

FIRST ENDORSEMENT on RADM USN, Report of Court of Inquiry of 23 Oct 92

From: Commander, U.S. Sixth Fleet
To: Judge Advocate General
Via: (1) Commander in Chief, U.S. Naval Forces Europe
(2) Commander in Chief, U.S. Atlantic Fleet

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

Ref: (d) BUPERS Manual, paragraph 3410105

Encl: (20) NAVDRUGLAB NORFOLK VA 221117Z OCT 92
(21) Command organization diagram of USS SARATOGA's Ops/NSSMS personnel

Tab: (A) Convening Authority's modifications to COI report

1. Readdressed and forwarded.

2. The tragic and grave consequences of this unfortunate event are deeply regretted. On behalf of all of the Sixth Fleet, I extend my sincerest condolences to the families and friends of the five MUAVENET crewmembers who died, to the fourteen injured sailors, and to all who have been affected by this tragic event. As stated by the Court of Inquiry (COI), the regret and remorse for the loss of life and injury are most deeply shared by each of the parties to this inquiry. In reviewing this investigation, I am convinced and agree with the COI that the consequences of this act were not the result of any criminal intent or act, or the result of culpable negligence by any individual. The SARATOGA officers and enlisted personnel involved are experienced Navy men with good records who, in performing their duties on the evening of 1 October 1992, made mistakes which together contributed to this act. No person intended the resultant consequences. However, there was both a failure to properly establish and follow procedures and insufficient training for certain key personnel that allowed a series of events to occur unchecked which culminated in the firing of the Seasparrow missiles. The Court of Inquiry identified the source of these discrepancies and those individuals who are responsible are held accountable.

ALL B6

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

3. Shortly after midnight on 2 October 1992, USS SARATOGA (CV 60) mistakenly launched two NATO Seasparrow missiles at the Turkish Naval vessel TCG MUAVENET (DM 357). The missiles exploded upon impact of the pilothouse of MUAVENET. A board convened by the Turkish Navy to ascertain damage may determine the exact result of the missile firings. As a result of the missile explosion, five Turkish Naval service members, including the Commanding Officer, were killed and 14 service members were injured. The TCG MUAVENET suffered extensive damage to the superstructure and two decks below the bridge due to the explosion, the resultant fire, and extensive secondary water damage. At the time, MUAVENET was approximately three miles distant and abaft the port beam of USS SARATOGA in the Aegean Sea. Both ships were participating in the annual NATO exercise Display Determination-1992 (DD-92) which had begun on 25 September 1992. The second phase of DD-92 had concluded at 1000 (local), 1 October 1992 and all participating units were repositioning from south of Crete to the southern Aegean Sea for the commencement of the third phase of the exercise (Enhanced Tactical Phase) which began at 0000 (local) on 2 October. The Enhanced Tactical Phase included the opposed transit of the Brown forces to the amphibious operating area, and the amphibious landing by Brown forces at Saros Bay, Turkey. USS SARATOGA, with Commander Cruiser Destroyer Group EIGHT (COMCRUDESGRU EIGHT) embarked, was a member of the Brown forces and TCG MUAVENET was assigned as a Green unit.

4. Pursuant to section 0207(c) of reference (c), a preliminary investigation was conducted by the Sixth Fleet Chief of Staff, CAPT , USN, on 2 October 1992 immediately following the incident. As a result of the recommendation from that investigation, a court of inquiry (COI) of three U.S. Navy flag officers was convened by Commander U.S. Sixth Fleet on 2 October (President -- RADM USN; members -- RADM USN and RADM USN). RADM Turkish Navy, was appointed an observer to the court. The COI assembled onboard USS SARATOGA on 3 October and commenced open session on 4 October. The COI concluded hearings on 16 October. The report of the COI of inquiry was delivered to Commander Sixth Fleet on 23 October. Initially seven parties were designated by the convening authority. One additional party was designated by the COI during the proceedings. At the conclusion of the proceedings, one party was un-designated by the COI.

5. This tragic accident is the result of a series of independent actions and events which created an inconceivable situation where

ACLBC

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

SARATOGA officers in the ship's Combat Direction Center (CDC) were conducting a simulated surface Seasparrow exercise engagement against a formation of ships, including the TCG MUAVENET, while the fire controlmen personnel manning the NATO Seasparrow missile system (NSSMS) and the fire controlman on the Target Acquisition System (TAS) console in CDC were under the mistaken belief that it was an actual real-life engagement. For approximately fifteen minutes, both groups interacted and conducted a methodical NSSMS launch sequence with neither group aware of the others' understanding of the engagement (i.e., simulated versus real life) or, more importantly, each other's intentions. As a result, at 0004, 2 October 1992, two Seasparrow missiles were launched by the NSSMS personnel on what they believed to be an actual order to engage a hostile surface vessel. The CDC officer personnel never intended to actually fire a NSSMS missile, nor thought that an actual NSSMS was being prepared for firing. The CDCO, TAO and SWC intended only to conduct a simulated attack by going through the firing sequence and verifying each step for the launch of a NSSMS salvo. The mistaken belief of fact that this was an actual engagement held by the NSSMS personnel and the TAS operator in CDC was honest, given the unique set of circumstances leading up to the engagement and given the experience level of the personnel involved and their training as a rapid self-defense weapons response team. B6

6. The principal facts in the chain of events of this incident are remarkably undisputed except for the initial exchange between the TAS operator in CDC and the SWC. The SWC stated that he told the TAS operator to "take exercise track 6337" when the TAS operator initially manned his position. There is equal evidence that the word "exercise" may not have been used by the SWC, or, if used, it was not heard by the TAS Operator. Other than this disputed exchange, there is no evidence to indicate that the words "exercise" or "simulated" were used in CDC for the NSSMS engagement sequence of TCG MUAVENET. While many factors were involved which have been thoroughly investigated, developed and reported by the COI, the following are considered the most

ACL B6

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

critical events that contributed either directly or indirectly to this tragic event:

a. Direct causation:

(1). The late decision of the CDC Officer to simulate a NSSMS engagement. While not the proximate cause of this incident, the CDC officer put into motion the chain of events at approximately 2330, 1 October by taking action to initiate an "eleventh hour" simulated surface mode NSSMS attack, in conjunction with the commencement of phase III of DD-92, against three Green force ships in a column three miles away. He directly informed the battlegroup commander of his intentions, rather than using the normally required procedures of informing the anti-surface warfare commander within his task force organization. He then failed to ensure all members, including the TAS Operator and NSSMS personnel, were properly briefed prior to conducting this exercise. (COI opinion 11)

(2). Failure to properly brief the TAS operator. The TAS operator, upon manning his position in CDC at approximately 2350, was not briefed by the SWC of the situation, but was only told to "take" the tracks of the three surface contacts off SARATOGA's port beam. As discussed above, whether the word "exercise" was used is disputed. Under this mistaken belief of a real-world threat, the TAS operator perpetuated the mistake by informing the NSSMS personnel in the launcher control room that it was a "real-world" engagement. (COI opinions 14, 23, and 24)

(3). Lack of understanding of the term "arm and tune." The request for "arm and tune" was passed from the Firing Officer's Console (FOC) operator to the TAS operator to the SWC and TAO. Permission to "arm and tune" from the TAO back through the SWC to the NSSMS personnel solidified the mistaken belief of the NSSMS personnel that this was an actual engagement since they believed this command is only given when actual firing is contemplated. Neither the TAO nor the SWC understood the significance of the term "arm and tune." (COI opinions 23 and 24)

(4). Failure of the TAS operator to question the SWC or TAO. The TAS operator failed to question the SWC or TAO regarding the situation during a fifteen minute period during the firing sequence. Specifically, despite being questioned by the FOC operator "if this for real," he did not ask this same question of the SWC or TAO. (COI opinions 15 and 25)

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

b. Indirect causation.

(1). Failure to man the TAS console during Condition III. The TAS console was not manned until the decision was made by the CDC Officer to utilize the NSSMS for a simulated engagement. COMCRUDESGRU EIGHT "Battle Orders" and "Cruising Instructions" both require all ships to be in Condition III during normal operations during the deployment. SARATOGA's "CDC Doctrine" does not require the TAS console to be manned during Condition III. Regardless of manning requirements, it would have been prudent for the benefit of training to have had the TAS console manned given the impending commencement of the Phase III of DD-92. If the TAS console had been manned throughout the exercise, the TAS operator would have been fully aware of the exercise context in which the simulated attack was ordered. This incident, again, sadly points out the importance "to train as we would fight" which requires exercising as a fully manned and integrated unit. Anything less invites mistakes. (COI opinion 19)

(2). Lack of standard terminology and checklist for NSSMS firing sequence onboard USS SARATOGA. It is disheartening to find the contradicting procedures and the lack of standard terminology and checklists which contributed to this catastrophic event. The CDC team's lack of specific command guidance in the foregoing and the lack of understanding of the status of the NSSMS in various conditions of readiness, as the results tragically demonstrate, made the use of NSSMS inherently dangerous under these circumstances. Though neither the Commanding Officer and the CDC Officer were directly involved in the firing sequence, each should have been, precisely for the reason of negating an erroneous command which would lead to inadvertently firing a weapon. B(6)

. (COI opinions 20, 21, 48, 51, 52, and 54)

c. Other factors. In reviewing this investigation, I would be remiss if I did not comment on the qualifications, prior training and resultant expectations of the officers directly involved in this incident. While not necessarily a contributing factor to this incident, it is an area that should be reviewed by the type commander and the Navy. Of the officers involved, i.e., the Operations Officer, CDC Officer, TAO and SWC, all are serving in first-time ship's company tours. Of these four officers, only the SWC had attended a formal school (TAO school) as part of his

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

assignment to ship's company of USS SARATOGA. In the case of the Operations Officer, he had reported to the USS SARATOGA in October 1991 directly from his command tour without any pipeline training. He served as CDC Officer for six weeks before taking over as the Operations Officer. He was due to detach in October 1992 which would have given him a one year tour onboard SARATOGA. Similarly, the CDC Officer reported in November 1991 directly from his command tour without any pipeline training and immediately assumed duties as the CDC Officer. Both of these officers were responsible on SARATOGA for the qualification boards and training of the TAO's and SWC's. Moreover, the responsibilities of a CDC officer include exercising command negation authority over the TAO. Prudence would dictate that an officer who is to assume the important duties of Operations Officer or CDC Officer of an aircraft carrier with no prior shipboard experience should be afforded some pipeline training or subsequent formal training while onboard.

7. Regarding accountability for this incident, I concur with the Court's recommendations 25, 26 and 27, with the one modification stated below B6 I have carefully and painfully reviewed the conduct of each party in view of the Court's recommendations, and I agree with the COI that courts-martial is not appropriate. I do not believe that the action or inaction of any single individual rises to the level of a courts-martial offense, but individual deficiencies are better addressed through flag officer nonjudicial punishment. The following specific comments address accountability:

a. I concur with COI opinion 7 regarding Petty Officers B6 and B6 and find that they acted as ordered by CDC in the execution of their duties in the NSSMS launcher control room.

b. I concur with COI recommendation 27 that no action be taken against B6 the on-coming TAO. He actions did not contribute to the eventual missile firing.

c. I will conduct nonjudicial punishment in accordance with sections 0107a(2) and 0110d of reference (c) for those individuals addressed in COI recommendations 25 and 26. When action is completed, I will forward the results for inclusion with the investigative report.

d. B6

CONFIDENTIAL

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

B6

8. The following are administrative comments regarding the investigation:

a. The results of the six urinalysis samples of the six personnel identified in COI finding of fact 14 were negative. (Enclosure 20)

b. The times provided in the COI Executive Summary and within the report are the Court's best effort at a chronological reconstruction through the testimony and evidence presented to

the Court. These times, other than the times of the actual missile firing, should only be used as a guide in the sequence of events determined and reported by the Court.

c. An organization diagram of the command relationships from the Commanding Officer through Operations/CDC to the NSSMS personnel is attached as enclosure (21) for the aid of subsequent reviewers.

d. Potential claims against the U.S. Government arising out of this tragic event are not addressed by this investigation, but will be addressed, as appropriate, through other channels.

e. Social security numbers have been removed throughout this investigation in accordance with section 0202e(4) of reference (c).

f. I have removed enclosures (14) - (18), draft punitive letters, and I will consider using them when I conduct nonjudicial punishment.

9. The COI completed a formidable task of distilling into the Court's report the testimony of 70 witnesses heard over a two week period and 200 exhibits. As a reviewer, I have given wide latitude and discretion to the court's formulation of findings of fact, opinions and recommendations. Where areas of the report (findings of fact, opinions and recommendations) go beyond supporting findings of fact or opinions, I have deferred to the deliberative and unique process of the Court in being able to draw from all information that it was exposed to during the course of the investigation. Tab A contains those modifications, deletions and additions to the Court's findings of fact, opinions and recommendations that I believe are appropriate.

10. Pursuant to NATO STAGNAG 1179 (COI procedural exhibit V), a copy of this investigation will be provided to Commander in Chief, Allied Forces, Southern Command, for completion of the combined (U.S. Navy/Turkish Navy) investigation process for NATO maritime incidents. This process requires that each nation complete independent investigations of the incident, and that a combined panel review and provide a joint summary of the investigations.

11. In closing, the members of the COI and all who participated and provided support are to be commended for the extraordinary effort in providing a thorough and full account of this tragic

CONFIDENTIAL

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENET (DM 357) WHICH OCCURED ON 2 OCTOBER 1992

event. The efforts of all concerned will ensure that recurrence of any such similar event is prevented in the future.

12. Subject to the foregoing, the findings of fact, opinions and recommendations of the court of inquiry, as modified in Tab A, are approved.

Copy to: (w/COI rpt and transcript/exhibits)
CINCSOUTH
NAVY JAG
RADM

ACL B6

TAB A

MODIFICATIONS AND ADDITIONS TO COI REPORT
(FINDINGS OF FACT, OPINIONS AND RECOMMENDATIONS)

FINDINGS OF FACT

1. The following are modifications to the COI findings of fact (enclosure 2):

a. FF 7: Rewrite as follows:

"The aft GMFCS (normally includes a radar set, Firing Officer's Console (FOC), computer complex, and Low Light Level Television (LLTV) system) is located on sponsion 12, port side where the MK 132 MOD 1 launcher is also located. However, the LLTV system is not installed in the aft GMFCS. (SW810-AD-MME-OIO(C)) (Ship's diagram)

b. FF 8: Rewrite as follows:

"All Low Light Level Television systems on SARATOGA are in storage and are not installed on NSSMS systems as intended. (pg 926)"

c. FF 14: Add the word "alcohol" between the words "blood" and "tests."

d. FF 36: Disapproved. This is an opinion and not a finding of fact.

e. FF 53: Rewrite as follows:

"FOC operator B6 TAS operator B6 and RSC operator B6 were unaware of the nationality of the three surface ships that were being tracked and engaged." (Testimony of B6 and Exhibit 167)

f. FF 58: Substitute for words "this is the real thing," the words "is this for real." (pg 186)

g. FF68: Disapproved. Given the lack of standard terminology Navy-wide, this is more appropriately an opinion.

h. FF141: Comment. From the testimony, numerous tracking exercises were conducted with the NSSMS onboard SARATOGA. It is also evident the "test and training" mode was not fully utilized. However, it is unclear from the testimony if the tracking exercises included simulated firing sequences as training.

i. FF 145: Disapproved. FF 145 and 147 are duplicitous.

j. FF 182: Rewrite as follows:

"SARATOGA is scheduled for an NSSMS upgrade (ACDS Base line Zero Level Seven) which will provide for an interface between the TAS and SWC consoles. This interface will permit command and control over the TAS operator through "break engagement" and "assign launcher" buttons. These will permit the SWC to exercise command by negation over the TAS operator. (. testimony, pgs 906-907 and Exhibit 172)

k. FF 183: The second sentence is disapproved but is added as additional opinion 62.

2. The following are additional findings of fact:

FF 186: At approximately 2345, B6 the on-coming TAO called B6 in the after NSSMS mount and directed the acquisition of surface contacts in the local search mode. B6 testimony and Exhibit 166)

FF 187: B6 did not relieve B6 as TAO, and was outside CDC assisting with the "link" picture during the actual NSSMS firing sequence. (Exhibit 166)

FF 188: At approximately 2350, B6 manned the TAS Console after receiving a set of headphones. (Time is extrapolated from B6 testimony and Exhibits 166 and 167)

FF 189: When in a normal operations mode (not in training mode), the track alert buzzer on the TAS console only sounds for high-speed air tracks. The alert buzzer does not sound for slow moving surface tracks. (testimony, pg 968)

FF 190: B6 did not attend TAO school. (Exhibit 171, pg 9)

FF 191: The urinalysis drug testing results were negative for those individuals named in FF14. (enclosure 20)

OPINIONS

3. The following are modifications to the COI opinions (enclosure 3):

a. Op 1: Substitute the word "mistaken" for "accidental."

b. Op 3: Comment. The statement regarding the emergency care saving the lives of four crewman is supported by the account of the medical care provided in exhibit 157.

ALL B6

c. Op 5: The opinion is rewritten as follows:

"Once the Seasparrow missiles were launched from SARATOGA, the short range to target, 15 second flight time, missile design and velocity, and immediate lock-on made it virtually impossible for an operator onboard SARATOGA, even under ideal circumstances, to have altered the flight path of the missiles to have avoided the MUAVENET. (FF 11 and 13)

d. Op 6: The opinion is rewritten as follows:

"The principal cause of the accident was the order to fire the NATO Seasparrow missiles. The primary precipitating factors of this cause were the failure of the CDCO, TAO and SWC to brief the TAS operator of the exercise engagement; the failure of the TAS operator to question the TAO or SWC after being asked by the FOC operator "is this for real;" and the failure of the TAO and SWC to understand the significance of the term "arm and tune." (FF31, 33, 41, 56 and 58)

e. Op 7: Add the words "the mechanical steps in" after the word "performed."

f. Op 9: Delete the word "fatigue." Fatigue, as a factor, was not addressed in the investigation. Add FF 191 as supporting the opinion.

g. Op 10: Add FF 55, 186 and 187 as supporting the opinion.

h. Op 12: Add the following to the end of the sentence, "when conducted by a properly trained and briefed watch team."

i. Op 20: Substitute the word "mistaken" for "accidental."

j. Op 43: Disapproved in view of opinions 21, 22, 37, 39, 41, 46, 47, and 48.

k. Op 53: Rewrite the second sentence as follows:

"They indicated that the term sounds inherently unsafe which would have precluded granting the request. (FF 84, 86, 87, 88, 90, 92 and 94)

l. Op 59: The words B5 are disapproved. This is speculation that is not supported by the investigation.

4. The following are <u>additional opinions</u>:

Op 62: The existence of safety check devices on the NSSMS is adequate to prevent the accidental or mistaken launching of a Seasparrow if a proper safety checklist is followed. (FF 183)

Op 63: SARATOGA Battle Orders (S3510.1A) which require arming in all warning conditions and a 60 second requirement to transition as warning conditions change are inconsistent with the CDC doctrine which does not require the TAS operator to be manned during Condition III. (FF 145, 147, 153 and 155)

Op 64: Installation of the ACDS Base Line Zero Level Seven upgrade on the NSSMS onboard SARATOGA would have provided the SWC with the opportunity to negate the actual firing commands of the TAS operator. (FF 182)

Op 65: The actions of B6 the on-coming TAO, did not contribute to the incident. (186 and 187)

Op 66: During the NSSMS engagement of MUAVENET, the track alert buzzer on the TAS console would not have sounded, even if the TAS console was in the normal (not the train mode), since this was a surface and not an air track. (FF 77 and 189)

RECOMMENDATIONS

5. The following are modifications to the COI recommendations (enclosure 4):

a. Opinions which support recommendations 1 - 24 and 27 have been added to the original report by the Convening Authority.

b. Rec 6: Rewrite as follows:

"In conjunction with Recommendation 17, the Type commander determine and promulgate appropriate Condition III manning of the NSSMS and CIWSS self-defense weapons systems for aircraft carriers. (Op 19, 57 and 63)"

c. Rec 20: Substitute the word "terminology" for the "phraseology." Add the following at the end of the recommendation, "and promulgated for information to all schools with NSSMS teaching responsibility."

6. The following are additional recommendations:

Rec 28: B6

Rec 29: B6

(Op 15, 23, 24 and 25)

Rec 30: That USS SARATOGA be de-certified for all NSSMS operations, including ordnance handling. Routine maintenance and PMS should continue to be accomplished. The NSSMS team should be

retrained and all personnel PQS qualified, before the ship is certified by the appropriate authority to operate the NSSMS. (Op 27, 28, 30, 31, 32 and 33)

Rec 31: In view of Recommendation 30, the upcoming NSSMS ordnance off-load of USS SARATOGA be supervised by qualified personnel from outside OEM workcenter to ensure safe and proper ordnance handling. (FF 170, 171, 172 and 173; and Op 27, 28, 30, 31, 32 and 33)

Rec 32: This tragic event be used for shipboard and school training to illustrate the need to train as a fully integrated unit and the absolute necessity for standard weapons systems terminology which is understood by all watchstanders. A copy of this investigation should be forwarded to the Navy Safety Center at the appropriate time. (Op 19, 47, 49, 50, 52, 54 and 55)

UNCLASSIFIED

~~CONFIDENTIAL~~

23 October 1992

~~CONFIDENTIAL--Unclassified upon removal of enclosure (19)~~

From: President, Court of Inquiry
To: Commander, U.S. Sixth Fleet

Subj: COURT OF INQUIRY (COI) TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEASPARROW FIRING ON TCG MUAVENE (DM 357) WHICH OCCURRED ON 2 OCTOBER 1992

Ref: (a) COMSIXTHFLT ltr 5813 Ser 00/310 of 2 October 1992
(b) JAGINST 5830.1 of 19 November 1990
(c) Manual of the Judge Advocate General

Encl: (1) Executive Summary
(2) Findings of Fact
(3) Opinions
(4) Recommendations
(5) Memorandum from LCDR , USN of 19 OCT 92
(6) Statement of LT B6 USN undated
(7) Statement of LT B6 USN of 20 OCT 92
(8) LTJG Dion Robb, USN, HS-9 ltr undated
(9) CO, (CG-51) ltr 5800 CG51 Ser/422 of 2 OCT 92 w/o enclosures
(10) COMSIXTHFLT r/m 161655Z OCT 92
(11) USS SARATOGA (CV 60) Medical Action Team
(12) NAVJAG 5800/15 Injury Report of 14 OCT 92
(13) Draft Letter of Admonition, B6 USN
(14) Draft Letter of Reprimand, B6
(15) Draft Letter of Reprimand, B6 USN
(16) Draft Letter of Reprimand B6
(17) Draft Letter of Reprimand B6
(18) Draft Letter of Reprimand B6
(19) Record of Hearing (verbatim) w/Exhibits (C)

PRELIMINARY STATEMENT

1. The Court of Inquiry into all the facts and circumstances connected with the accidental launch of two NATO Seasparrow Missiles on TCG MUAVENET (DM 367) is complete. The court convened pursuant to reference (a), and was conducted in accordance with reference (b) and (c). All reasonably available evidence was collected and each directive of the appointing order except as noted below, has been met. The findings of fact, opinions and recommendations addressed the actual missile launch and strike, reviews the training standards and procedures of SARATOGA's Operations Department, and touches on personnel performance issues and the technical aspects of the NATO Seasparrow Missile System. All of these documents, preceded by the Executive Summary, are attached as enclosures (1) thru (4). These documents comprise the Report of the Court. All documents associated with the Court should be considered unclassified unless specifically marked or noted otherwise. The Report of the Court is unclassified. The record of the proceedings and exhibits are unclassified except where specifically noted as confidential in testimony or an official document attached as an exhibit. B6

UNCLASSIFIED

2. In view of the parallel investigation conducted by the State of Turkey, lack of available substantive evidence on the matter, and the physical inability to ascertain sufficient factual data to facilitate the resolution of the issue with any degree of certainty, this inquiry chose not to pursue a detailed examination of the issue of material damage to TCG MUAVENET. However, photographic evidence depicting the structural damage to the ship and a report forwarded by the Explosive Ordinance Disposal Team embarked in USS SARATOGA (CV 60) has been included as an Exhibit to the record of proceedings.

3. Due to operational necessity, the Court of Inquiry was conducted onboard USS SARATOGA (CV 60), which remained underway in the Aegean and in Mediterranean Seas. SARATOGA continued to satisfy its operational commitments in the wake of the mishap. Although there was no "pre-stage COI team," the commands and individuals involved fell immediately into step. The members and counsel for the parties arrived onboard within 36 hours after the incident. Naval Legal Service Office, Naples accepted the formidable task of providing counsels for the parties, court-reporters, and equipment. Counsel for the Court was also obtained from in-theater. Counsel for the Court arrived onboard SARATOGA at approximately 1230 on 4 October 1992.

4. Reference (a) designated six individuals as parties to the Court. At their request, two other individuals were subsequently designated as parties. Prior to the close of the proceedings, the Court of Inquiry dismissed a previously designated party because of insufficient evidence.

5. The hearings progressed in a smooth and orderly manner. In this regard, the Court received superb support from all of the organizations and individuals involved in this process. One Special Agent of the Naval Investigative Service was made available at the request of Counsel for the Court because of his past experience with Courts of Inquiry. This individual undertook a number of tasks that Counsel for the Court was unable to accomplish without assistance. The administration and logistical support provided by USS SARATOGA (CV 60), particularly the office of the Command Judge Advocate, was absolutely indispensable to the timely completion of this investigation.

6. The Court of Inquiry began proceedings at 1900, 4 October 1992, and closed at 2045, 16 October 1992. The taking of sworn testimony, introduction of documentary evidence, and admission of sworn and unsworn statements was completed in 12 days. The compilation of findings of fact, opinions, and recommendations was accomplished during the period of 17 - 21 October 1992. Administrative matters and the Executive Summary were completed on 23 October, three weeks after the mishap.

7. Two pieces of possible documentary evidence could not be located. These were:

-- the PQS book of the Ship's Weapons Coordinator (SWC) on watch at the time of the accident, B6 ; and

-- the Tactical Action Officer (TAO) Turnover Log records for 1 and 2 October 1992.

The PQS book was probably legitimately misplaced prior to the incident; TAO turnover log records may never have existed for the dates indicated. Court exhibits 22 and 23, the handwritten statements of two witnesses, also cannot now be located.

8. The Court of Inquiry also had the benefit of the special expertise of several individuals. These individuals were made available on a unlimited basis to counsel for the parties.

9. Enclosures (5) thru (12) were not viewed by the members of the Court of Inquiry and were collected subsequent to the conclusion of the proceedings. They are provided for the benefit of reviewing authorities. In this connection reviewing authorities are also invited to take note of USS THOMAS GATES confidential r/m 031900Z OCT 92. The enclosures attached to enclosure (9) of this preliminary statement are not included here. All of these documents were reviewed by Counsel for the Court and made available to counsel for the parties for possible use during the hearings. The documents from enclosure (9) not admitted in evidence remain onboard USS SARATOGA.

10. Counsel for the Court will, by separate correspondence, detail the lessons learned; administrative organization and suggested procedural changes; and specifically recognize those individuals who contributed to the completion of this Court of Inquiry.

11. Proposed letters of Admonition and Reprimand are attached as enclosures (13) thru (18).

12. The authenticated record of the proceedings exhibits, are attached in several volumes as enclosure (19).

Rear Admiral, U.S. Navy

ALL B6

UNCLASSIFIED

23 October 1992

Executive Summary

Court Precis

In the early minutes of 2 October 1992, USS SARATOGA launched two RIM-7M missiles from the ship's NATO Seasparrow Surface Missile System (NSSMS) at TCG MUAVENET. Seconds after release, both missiles struck the bridge area along the centerline of the MUAVENET. The resulting explosion killed five of her crew and seriously injured another thirteen. Among the dead was the ship's captain. One American sailor, a search and rescue swimmer, was injured while trying to effect the rescue of an injured, adrift Turkish sailor.

The court found that the following parties to the inquiry, all of whom serve in USS SARATOGA, were directly or indirectly responsible for this incident: Commanding Officer, Operations Officer, Combat Direction Center Officer, Tactical Action Officer, Ship's Weapons Coordinator, and Target Acquisition System Operator. B6

The tragic consequences of this event were not caused by the willful or deliberate wrongdoing of any person; they resulted instead from the cumulative effect of several instances of neglect and lapsed judgment by a small group of otherwise caring and dedicated professionals. These same professionals had previously won for their ship the hard-earned accolade as the best carrier (CV/CVNs) operations department in the Atlantic Fleet.

The evidence eliminates any system, program, computer, or mechanical defect in NSSMS as the cause for release of the missiles. Sadly, in this case, NSSMS performed exactly according to design. There is also no evidence whatsoever to suggest that the criminal acts of any person, either as an individual or in concert with others, directly or indirectly caused this catastrophic event. In addition, there is no indication from the evidence that drugs, alcohol, or fatigue played any part in SARATOGA's 2 October missile firing.

At a broader level, however, the occurrence of this event appears symptomatic of deeper rooted problems and structural deficiencies. Until addressed, the deficiencies identified below will remain as barriers to improved operational proficiency and safety. The most significant of these barriers arise in two areas:

(1) Training of CV/CVN personnel responsible for the combat use of the ship's point defense system or for oversight of watchstation training for ship's company; and
(2) CV/CVN command structure as it relates to oversight of the ship's watchstation training program and the organization of personnel responsible for the combat use of the ship's point defense system.

The warning sounded by the lives and careers lost in the aftermath of the mishap of 2 October suggests a course correction in the above areas. Accordingly, the court has also made several rooommendations intended to improve the critical processes which now define those areas and, in that way, improve overall operational readiness, proficiency and safety for the U.S. Navy.

B6

The membership of the court is unanimous in its findings, opinions and recommendations.

Procedural Matters

This unclassified document summarizes the report of the court of inquiry appointed by Commander, U.S. Sixth Fleet on 2 October 1992 to inquire into the circumstances surrounding the USS SARATOGA (CV 60) Seasparrow firing on the Turkish ship MUAVENET (DM-357). The appointing order is attached as Tab A. The entire proceedings of the court are recorded in a verbatim transcript. The separate report that follows this summary distills the court's proceedings into findings of fact, opinions and recommendations. A chronology of pertinent events relating to the matter under inquiry is attached to this summary as Tab B.

Proceedings of the court commenced on 4 October and closed on 16 October. All proceedings of the court, except those where

classified evidence was taken, were open. The court convened aboard USS SARATOGA while it continued to operate in the Mediterranean. Located or placed on scene in SARATOGA to act in support of the proceedings were some 16 Navy and Marine Corps judge advocates, eight Navy Legalmen, several technical experts, and numerous other support personnel from ship's company. At the request of the court, an NIS agent was also assigned to assist the court. He worked under the direction of the court in support of the court's investigative effort. The live testimony of more than 50 witnesses generated over 1150 pages of transcript. The court also admitted 195 exhibits and took note of many other official documents, records, and publications.

Every effort has been made to keep the record of the proceedings unclassified. The report of the court is unclassified. The record of proceedings is almost entirely unclassified. Restrictive classification applies only to the very limited testimony and few documents which contain classified NATO data on NSSMS parameters. None of this information bears directly on the cause of the incident under inquiry.

Membership of the court consisted of three flag officers of the U.S. Navy. A flag officer of the Turkish Navy was also formally recognized as an official observer of the proceedings, but was not present and did not participate in the deliberations of the court. This unprecedented investigative effort resulted in a fair, timely, deliberate and thorough examination of the issues presented. All of the work of the court was completed on 23 October.

Display Determination, the OTC and the CDCO

SARATOGA's 2 October firing of missiles against the MUAVENET occurred against the backdrop of Exercise Display Determination 1992 (DD'92), a combined NATO naval exercise. Display Determination is an annual exercise conducted pursuant to terms agreed on at the unified commander level. An enhanced tactical phase of DD'92 commenced for all participating ships on midnight of 1 October. The MUAVENET, along with several other U.S. and allied warships, played the role of a "hostile" "Green" force combatant; SARATOGA and its embarked battle group staff, with others, played the part of a "friendly" "Brown" force combatant. At the time of the accident, a distance of approximately three nautical miles separated the two ships, which were operating in international waters. The reconstructed relative position of some of the units in the vicinity of SARATOGA at the onset of the enhanced tactical phase is depicted in Tab C .

At midnight on 1 October a real-world "white and safe", or completely benign, actual tactical situation existed for all exercise participants. At no time did any exercise participant intend for the strictly simulated "hostile" engagements planned

was not manned at the Condition III level of readiness required for all in theater underway steaming by the OTC's standing battle orders. In Condition III the TAS console in CDC would be expected to be manned on a 24 hour a day basis. Without having directly informed the OTC, SARATOGA policy was to routinely standdown this watch during Condition III, whether in exercises or not. This policy is consistent with the ship's published CDC doctrine.

Neither the OTC nor his staff had any knowledge of this situation. In this connection, the OTC and his staff normally direct battle group operations from a Task Force Combat Center (TFCC) that is distinct from the ship's CDC; they do not man or routinely direct, control, or manage the internal operations of SARATOGA's CDC. Considering all of the above facts, the court of inquiry determined that the actions of the OTC on 1 and 2 October did not in any way contribute to the firing of missiles against MUAVENET. The evidence also fails to disclose any reasonable basis upon which to hold the OTC accountable for this incident. Accordingly, the court does not recommend any action against the OTC or his staff.

The FOC

The firing officer console operator (FOC) in SARATOGA launched the missiles, because he resolutely believed he was executing the real-world orders of the ship's combat direction center (CDC) to fire live missiles at a designated actual hostile surface contact. The evidence convincingly demonstrates that the FOC -- a petty officer third class -- was justified in his belief and acted properly in discharging his duty as he understood it to be on 2 October 1992. The evidence eliminates as an issue any question of operator competence as it relates to the conduct of the FOC on 1 and 2 October. The release of missiles on 2 October was not the result of any FOC operator error. The act of the FOC in pushing the button that fired the missiles was simply the logical culmination of a sequence of events over which he had no control. He was the "trigger" directed by others and little else.

The guidance features of one of the two missiles fired and its extremely short duration of flight made its impact with MUAVENET a virtual certainty once released from SARATOGA. There was no course of action available to any person which, even if taken immediately after release, would have succeeded in diverting at least that missile from its target intercept.

The FOC's belief that he was authorized to arm and release live missiles was the direct result of the use of extremely specific "triggering" terminology by SARATOGA's target acquisition system operator (TAS) -- "arm and tune", "free to take", and "fire." As used and understood by the FOC and TAS in

SARATOGA, these words exclusively denote a real-world, live-fire hostile tactical situation. When communicated from TAS to the FOC, they cued the FOC to activate the NSSMS, arm the launcher, assign ("tune") its missiles, and ultimately fire them against designated tracks. There is also clear and convincing evidence that the RSC operator -- another petty officer third class, who is co-located with the FOC -- questioned TAS, "Is this the real thing?" "Yes, this is real world," echoed TAS in response.

Furthermore, the FOC had no independent means by which to determine, and could not know, whether any track designated to him by TAS as a potential target was either a real-world "friend" or "foe." The FOC had to rely on the TAS' description of a designated track as "hostile." In short, the FOC did not know that the contact against which he fired missiles on 2 October was the MUAVENET, a friendly NATO ally. Had one been installed in the NSSMS mount, the routine use of a low light level television (LLLTV) by the radar set console operator (RSC) may have enabled the RSC to accurately identify designated tracks as friend or foe. These televisions are available onboard SARATOGA, but were not installed.

Also significant in this regard is the fact that the restrictive nature of the FOC's communication circuit does not permit him to communicate directly with anyone in CDC other than TAS. In essence, the FOC is dependent on whatever TAS -- also a petty officer third class -- relays to him as the authorized and intended orders of the ship's command. An overview of the net-8 and 10JP communications link in CDC and between the FOC and TAS is depicted in Tab D. Commands issued in CDC are relayed to TAS via net-8, then passed by him via the 10JP to the number 1 and number 2 NSSMS mounts. Transmissions made via the 10JP are heard by the FOC and RSC over a speaker box located inside the mounts. Communications on the net-8 cannot be heard over the 10JP and communications over the 10JP cannot be heard on net-8.

It must also be pointed out that the NSSMS control room, which houses the FOC and RSC, is physically isolated and removed from CDC. Several factors established by the evidence suggests that the sense of situational awareness of those who stood watch there may have, over time, tended to dull. This is especially likely, where, as in SARATOGA, the personnel assigned to the NSSMS mounts have lived and slept in their equipment spaces for several months. As a minimum, these circumstances worked to deprive NSSMS personnel of the normal flow of important shipboard and operational information available to others in their usual berthing areas (over the ship's closed circuit TV) or to regular watchstanders in CDC. An additional circumstance that may have led to a dulled sense of situational awareness among NSSMS personnel is the fact that, in CV/CVNs, they are not generally integrated into the CDC structure and organizationally remain outside the CDC chain of command. The compounded effect of all

of these unique factors should not be minimized as a possible explanation for why, in the final analysis, the RSC and FOC did not resist the command to fire.

The Hold Fire and Break Engagement Commands

The triggering terminology relayed from TAS to the FOC on 2 October was also accompanied by the TAS' release of the hold fire command on his console. This action provides the FOC with another indicator for the actual engagement of the missiles against "locked-on" targets. Until TAS disengages the hold fire button, the FOC cannot assign the launcher to the tracking radar. This is an essential step before actual missile release.

As SARATOGA's CDC is now configured, no responsible officer possesses an override mechanism keyed to TAS' hold fire command. A reconfiguration of SARATOGA's CDC is scheduled for completion during her upcoming selected restricted availability (SRA). This reconfiguration will add a "command by negation" capability to the ship's weapons coordinator (SWC) console located in CDC.

Even in its current state aboard SARATOGA, the CDC-NSSMS interface includes numerous safety checks and devices which normally are sufficient to prevent an unintended or mistaken missile firing. The long term effectiveness of these devices, however, depends upon the routine use of a standardized non-firing safety checklist by system operators. SARATOGA does not follow or possess a checklist for this purpose.

Based on all of the foregoing, in open session, the court of inquiry dismissed the FOC as a party to the proceedings.

TAS

The use of triggering commands by TAS on 1 and 2 October resulted from an assumption on his part that SARATOGA's tactical situation either was hostile at the outset of his watch or had later turned that way. Either of these assumptions probably seemed reasonable to TAS, since he nor anyone else in his division had ever before been called from their sleep at 2330 to man up for an unplanned, unannounced exercise. This assumption was able to persist, in part, because TAS failed to make any initial effort to ascertain the true tactical environment of SARATOGA. TAS had numerous sources of information available to him in CDC for this purpose.

When the ship's weapons coordinator (SWC) and tactical action officer (TAO) failed to challenge his use of the phrase "arm and tune", this served in his mind as a validation of whatever mistaken hostile assumption he then held. At this point TAS not only believed that SARATOGA was engaged in a real-world "hot" situation, but that every other CDC watchstander shared his same

anxious appreciation for an "unknown assumed enemy."

Had SARATOGA observed the requirement for Condition III manning of TAS in CDC, the event of 2 October would likely not have occurred. Twenty-four hour manning of TAS would have encouraged continuity in the thinking between TAS and the rest of CDC. This continuity was previously critical during the long work-up in CDC for the enhanced tactical phase of DD'92. By the time that TAS finally arrived in CDC at 2345, however, this work-up and any chance for continuity were all but finished, without a comprehensive brief of TAS which did not occur. Although his recent PQS qualification was questioned during the court proceedings, the person who was the TAS watchstander on 1 and 2 October is very experienced and enjoys a good professional reputation. His general proficiency as a TAS console operator is not in question, except as indicated below concerning his improper use of the TAS console training mode.

SWC and TAO

Although both the SWC and TAO were unfamiliar with the phrase "arm and tune", neither questioned TAS' use of this phrase nor sought to clarify its meaning or significance. As with TAS, the SWC and TAO also assumed a common understanding among CDC watchstanders about SARATOGA's tactical situation on 1 and 2 October.

Unlike TAS, however, the SWC and TAO firmly believed that everyone involved in CDC fully appreciated the actual benign exercise environment of SARATOGA on those dates. Unfortunately, as a result of their conviction, the SWC and TAO considered it unnecessary to question the use of an unfamiliar targeting and tracking phrase in the middle of what was intended to be a simulated missile engagement. From the testimony of many other SWC and TAO watchstanders in SARATOGA, the particular SWC and TAO on watch during the early minutes of 2 October stand alone as failing to recognize the danger signal that the request to "arm and tune" should have raised in the simulated, non-firing environment that the Display Determination exercise called for.

A potentially dangerous practice among TAS in SARATOGA is the routine use -- whether for exercise or real-world purposes -- of the "training" mode on the TAS console. While this practice did not contribute to the mishap investigated here, it could have represented yet one more possible source of misinformation for the SWC and TAO as to true weapons status. No relationship exists between the TAS console training mode and the capability of both TAS and the FOC to still engage with missiles. One is not dependent upon the other. It is also important to understand in this regard that the TAS console training mode is not in any way related to the "test and train" mode, which is activated by the FOC at his mount for tests and training on NSSMS. The latter

will prevent an actual missile engagement; the former will not.

The former and current commanding officers (CO) of SARATOGA, on the recommendation of the CDCO and the Operations Department Head (OPSO), formally designated each of the officers serving as the command's SWC and TAO on 2 October as qualified to perform those duties. Neither of these officers, however, was ever questioned or interviewed by the CO during their qualification process, so as to permit him personally to determine their fitness to serve as a TAO for USS SARATOGA -- and the CO's representative in CDC. In addition, neither was given a comprehensive qualifying board as directed in the Type Commanders (TYCOM) PQS Program Instruction. The CDCO and OPSO, acting under the direction of the Commanding Officer, also have primary responsibility for operations, organization, and training in CDC.

Significant Contributing Factors

As disclosed in court proceedings, a combination of several disturbing and closely related factors fostered the "fatal" assumptions entertained by the SWC, TAO, and TAS on 2 October. A number of shipboard level deficiencies in critical areas most directly led to the development and persistence of these assumptions. Some significant departmental level deficiencies, however, also indirectly contributed to the situation that existed in SARATOGA's CDC during the early minutes of 2 October 1992. Both of these levels of deficiencies, beginning with those that are shipboard in origin, are briefly discussed below.

Routine Failure to Brief Simulated Detect to Engage Scenarios

There is no set process in SARATOGA to verify the weapons systems configuration prior to simulated, non-firing training exercises; nor does SARATOGA employ a non-firing exercise checklist or script. Briefs for pre-planned but unannounced targeting and tracking exercises are conducted only on an ad hoc basis depending on the expertise of the given CDC watchstanders who happen to be on watch. The more experienced and senior of these watchstanders insist upon a brief that at least secures from all exercise participants an acknowledgement of their exercise understanding. In this case, TAS received only the most cursory of information about the ship's situation when he finally reported for his watch around 2345. Given the eleventh hour nature of the CDCO's plan to exercise NSSMS, as a minimum, it was absolutely essential to ensure TAS received a comprehensive brief of the exercise scenario.

A more comprehensive exercise brief, however, will still provide only a partial answer to this problem. Neither CDC nor NSSMS personnel in SARATOGA fully appreciate the importance of using standardized terminology when conducting a simulated detect to engage, non-firing training sequence. The very best of

SARATOGA's watchstanders seem satisfied to require no more than a generalized acknowledgement among exercise participants confirming their involvement in an exercise. This approach fails to address the safety check procedures required to verify the actual weapons warning status of the weapons to be exercised or the precautions necessary to ensure that any possible exercise weapon is placed in the safe (firing not possible) mode before COMEX. Further complicating this situation is the fact that SARATOGA personnel do not use standard targeting and tracking terminology. As a consequence, terminology used by CDC and the Firecontrolmen in SARATOGA are inconsistent.

Finally, in the case of SARATOGA, the entire Weapons Workgroup assigned to the Operations Electronics Maintenance (OEM) Division were unfamiliar with the use of the test and train (safety) mode as a means to simulate realistically the combat sequence for a NSSMS engagement. A complete tactical or combat firing sequence using NSSMS cannot be conducted safely without the use of the test and train mode. Operator knowledge and confidence with its use is critical if combat readiness and proficiency with NSSMS is to be safely maintained.

Organizational Neglect of the Enlisted Combat Operators (NSSMS/TAS) of the Ship's Point Defense Weapons System

Prior to 2 October 1992, NSSMS and TAS personnel in SARATOGA were the forgotton few of the Operations Department. Beyond their workcenter supervisors, first and second class petty officers, no one either understood or took an active interest in both their operational and personnel concerns. In a word, NSSMS and TAS personnel were organizational orphans. After their workcenter supervisors, not a single other person normally expected to exercise supervisory authority -- the LPO, LCPO, Division Officer, Branch Head, or Department Head -- could do so. None was qualified or situated to provide NSSMS and TAS personnel with the operational guidance and direction that any junior personnel require from more experienced and senior individuals. Furthermore, their division and department training officers were similarly not qualified or situated to provide this operational guidance.

As members of the OEM division, virtually the entire focus of the chain of command for NSSMS and TAS personnel is on maintenance and administration. The court received evidence showing that all of the officers in the chain of command, with the exception of OPSO, considered these areas to be their primary responsibility and focused their energies accordingly. This understanding appears to have been consistent with command expectations. For this reason, the court reluctantly concluded to not recommend any disciplinary action against these individuals. The court, however, has recommended administrative action in the case of the LPO and LCPO, who failed to take any

meaningful action to apprise themselves of the status of training and qualification of subordinate personnel. One example of this inaction was the failure to take steps to qualify themselves as watchstanders in the operational areas under their supervision.

Further exacerbating this problem was the decision in SARATOGA to assign the only weapons systems operator qualified officer aboard -- a Chief Warrant Officer -- to responsibilities limited to ordinance handling and not the operational employment of weapons. The ship's manning document, however, requires the assignment of this officer to the Weapons Workgroup in the OEM Division. The organizational neglect of NSSMS and TAS personnel detailed above created an unnecessary artificial barrier between regular CDC watchstanders and the combat operators of the ship's point defense weapons system. To a degree, at least, the existence of this barrier explains why they failed to communicate as a team on 2 October.

To a significant extent, the shipboard deficiencies noted above are manifestations of several broader systemic deficiencies which persist at the departmental level. These deficiencies, several of which are noted below, also became evident to the court in the course of its proceedings.

Lack of Operationally-Focused Training for the CV/CVN Point Defense Weapons System

No single Navy school house appears to accept responsibility for teaching the operational aspects of CV/CVN point defense weapons systems. School commands seem unable or unwilling to teach a uniform Navy doctrine with regard to the operational employment of CV/CVN point defense weapons systems. Two specific examples of this situation are the absence of standardized terminology for a combat missile targeting sequence and the lack of an accepted Navy non-firing targeting and tracking missile exercise (safety) checklist. Had this standardized terminology existed and SARATOGA personnel been indoctrinated with it, the incident of 2 October may not have happened. Had a standardized and required non-firing exercise safety checklist existed and been followed, even the lack of knowledge about triggering commands exhibited in SARATOGA on 2 October would most likely not have resulted in the actual firing of missiles.

The lack of a uniform training approach to the command "arm and tune" seems to further complicate the establishment of effective standard engagement procedures for NSSMS. Until recently, the inadequacy of operationally-focused training for the CV/CVN point defense system was especially evident by the absence of a Combat System (Mobile) Training Team (CSMTT) for CV/CVNs. With proper focus, the recent emergence of the cross-community (jointly supported by surface and air TYCOMs) Afloat Training Group concept promises to fill this definite void.

Aggressive and sustained support for these teams is an essential component for meaningful improvement of CV/CVN point defense system readiness.

A necessary corollary of CSTT for ship's company CDC officers in CV/CVNs is the need for formal pipeline instruction in PQS management and oversight for junior officers who have not had a prior shipboard tour as ship's company. Naval aviators bound for duty as ship's company officers in CV/CVNs do not now receive this training. The experience of SARATOGA profoundly demonstrates that most of these officers lack even basic knowledge about watchstation and weapons system operator PQS programs, qualification standards, or TYCOM directives in these areas.

In SARATOGA, for example, not a single officer or leading petty officer in the chain of command for NSSMS personnel appreciated their responsibility for the operator training/qualification and watchstation PQS of subordinate personnel. B6

The court reached this decision after having concluded that, with the exception of OPSO, they had performed merely as expected by their own chains of command. There seems simply never to have been an expectation that these officers would exercise responsibility for oversight of operator qualifications or watchstation PQS, and that only equipment maintenance or General Shipboard PQS (Damage Control, Firefighting, 3M, HAZMAT, and Safety) required their attention. Indeed, SARATOGA's PQS program in these areas appears vigorous and well managed. Not one of these officers, however, could answer the question, "What is the level of watchstation PQS qualification of your assigned personnel?" Most also lacked any source of data from which to get this information.

In contrast to the above, evidence before the court also established with equal forcefulness that the training requirements related to air operations in CV/CVNs were strictly enforced and professionally monitored. In addition, several other divisions in the Operations and Engineering Departments had outstanding training programs in place. In almost all of these cases, however, positive training programs resulted from the initiative of selected individuals within those divisions who had prior experience with successful shipboard training programs. A deliberate effort to incorporate instruction about PQS program management into the pipeline training of those officers assigned as CV/CVN ship's company officers, therefore, should as a first step at least, help to reinvigorate watchstation PQS and operator qualification programs for ship's company in CV/CVNs.

Maintenance Dominated Approach of Standard CV/CVN Organization for Ship's Defensive Weapons System Personnel

The maintenance dominated approach taken toward defensive weapons system personnel in SARATOGA, and its probable attendant consequences in this case, underlines the need for a careful review of the "standard" CV/CVN organization for enlisted personnel assigned as combat operators of the ship's point defense weapons systems. Based on the experience of SARATOGA, it is evident that this review should focus on the realignment of the Weapons Workgroup within the ship's CDC command structure and the assignment of a weapons system operator qualified officer as its division officer.

Rescue and Assistance

Immediately following the incident, the USS SARATOGA, DETROIT and THOMAS S. GATES commenced a well coordinated, multi-faceted rescue and assistance effort in aid of TCG MUAVENET. This effort involved the combined actions of Search and Rescue Teams, Explosive Ordinance Disposal Teams, Firefighting Teams, Rapid Medical Response and Triage Teams, Communications Teams, and Boat and Helicopter Insertion Teams. Much of this activity was directed or coordinated by the CO of SARATOGA. The decisive, professional, and in some cases heroic actions of the USS SARATOGA, DETROIT, and THOMAS S. GATES, as well as their crews and embarked units, very probably prevented the loss of additional life and of the MUAVENET itself. These efforts accurately portray SARATOGA's overall high state of operational readiness and the dynamic leadership of its CO, as highlighted by the evidence before the court.

Closing Comment

In closing, the President of this court of inquiry notes the forthright manner with which information was presented to the court in order to determine what actually happened during the early moments of 2 October. He also expresses the genuine sadness felt by each member of the court with regard to the accident that occurred at that time, and the injuries and loss of life to Turkish personnel which ensued. It was also obvious from the sworn written statements received by the court from each party that no one regretted this incident more than the individual parties themselves.

RADM, U.S. Navy
President of the Court

UNCLASSIFIED

ACCB6

DEPARTMENT OF THE NAVY

UNITED STATES SIXTH FLEET
FLEET POST OFFICE
AE 09501-6002

5813
Ser 00/310
02 Oct 92

From: Commander, U.S. Sixth Fleet
To: Rear Admiral USN,

Subj: COURT OF INQUIRY TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEA-SPARROW FIRING ON THE TURKISH SHIP MUAVENET (DM-357) WHICH OCCURRED ON 02 OCTOBER 1992

Ref: (a) JAG Instruction 5830.1

1. In accordance with reference (a), a court of inquiry is appointed to inquire into the circumstances surrounding the USS SARATOGA (CV 60) Sea Sparrow firing on the Turkish ship MUAVENET (DM-357) that occurred on 02 October 1992. The court will be conducted on board USS SARATOGA (CV 60) as soon as practicable.

2. The court shall consist of you as president, Rear Admiral USN, and Rear Admiral , USN, as members. Rear Admiral Turkish Navy, is appointed as an advisor to the court of inquiry. Commander , JAGC, USN, and Lieutenant Commander JAGC, USN, lawyers qualified in accordance with Article 27(b) of the Uniform Code of Military Justice, are designated counsel for the court.

3. The court is directed to inquire into all the facts and circumstances connected with the Sea Sparrow firing on the Turkish ship MUAVENET (DM-357), the damage resulting therefrom, and deaths of the injuries to Turkish naval personnel; as appropriate, to perform the duties of an inquest; and to fix responsibility as appropriate for the incident. After deliberation the court shall submit its findings of fact, opinions and recommendations. The court will recommend administrative or disciplinary action, as appropriate, and any other recommendations regarding this incident.

4. The court is directed to suspend the proceedings and notify the convening authority at any time during the course of the investigation that it appears that the intentional act or acts of a service member were a contributory cause of the accident.

5. The court is directed to notify the following personnel that they are designated a party to the inquiry and that each individual is accorded the rights of a party pursuant to the provisions of JAGINST 5830.1: B6

The court is authorized to designate additional parties to the inquiry during the proceedings as may be deemed appropriate.

ALL B6

Subj: COURT OF INQUIRY TO INQUIRE INTO THE CIRCUMSTANCES SURROUNDING THE USS SARATOGA (CV 60) SEA-SPARROW FIRING ON THE TURKISH SHIP MUAVENET (DM-357) WHICH OCCURRED ON 02 OCTOBER 1992

6. Military attorneys qualified in accordance with Article 27(b) Uniform Code of Military Justice will be designated counsel for individual parties by separate correspondence.

7. The court is directed to take the testimony of witnesses under oath and to submit a verbatim record of the proceedings. Compliance with the Privacy Act of 1974 is mandatory during the proceedings.

8. By signed copy of this appointing order, Commanding Officer, USS SARATOGA (CV 60), is directed to furnish the necessary clerical assistance to the court. Naval Legal Service Office Naples will provide the personnel for the purpose of recording and preparing the record of this court of inquiry.

Vice Admiral, U.S. Navy

Copy to:
CNO
CINCUSNAVEUR
JAG
COMCRUDESGRU EIGHT
CO, USS SARATOGA (CV 60)
NAVLEGSVCOFF NAPLES
Members
Counsel
Parties

ALL B6

RECONSTRUCTED SEQUENCE OF EVENTS

2030: THRU 2345 — RADM (EXERCISE BROWN FORCE ASUWC-NS) AND LCDR (ASUWIC REP) BEGAN PLANNING FOR THE ENHANCED TACTICAL PHASE OF EXERCISE DISPLAY DETERMINATION 1992. LCDR WORKS CLOSELY WITH SARATOGA'S ASUW MODULE IN DEVELOPING THE BROWN FORCE ASUW TACTICAL PLAN.

2320: TAO IS LT B6 SWC IS LT B6

2325: CDR B6 (CDCO) DECIDES TO MAN NSSM STATIONS FOR SIMULATED SURFACE ENGAGEMENT AGAINST GREEN TARGETS.

2330: TAO CALLS OEM OFFICE REACHES FC1 B6

2330: LT B6 ASSUMES SWC FROM LT B6

2332: FC1 B6 CALLS FC1 B6 TO WAKE AFT MOUNT PERSONNEL.

2335: FC1 B6 WAKES UP AFT NSSMS MOUNT PERSONNEL (FC3 B6 & FC3 B6) SLEEPING IN MOUNT.

2337: TAO RECALLS FC1 B6 TO CHECK STATUS OF FIRE CONTROLMAN WAKE UP.

2340: FC1 B6 WAKES TAS FC PERSONNEL SLEEPING IN BERTHING COMPARTMENT (FC3 B6 & FC2 B6 .

2345: LT B6 CALLS DOWN TO AFT NSSMS MOUNT PERSONNEL (FC3 B6) AND DIRECTS ACQUISITION OF SURFACE CONTACTS WITH LOCAL SEARCH MODE. ACQUISITION UNSUCCESSFUL.

2345: RADM RELEASES FLASH MESSAGE ASSIGNING BROWN FORCE ASUW TACTICAL RESPONSIBILITIES. MESSAGE DOES NOT INCLUDE SARATOGA AS AN INFO OR ACTION ADDRESSEE.

2350: TAS MANNED BY FC3 B6

2352: TAS SENDS TRACKS TO FOC (FC3 B6 .

2353: TAS REQUESTS PERMISSION TO ARM & TUNE FROM SWC/TAO. TAO/SWC GRANT PERMISSION.

2354: TAS DIRECTS MOUNT TO ARM & TUNE.

2355 - 2400: FC3 B6 PROCEEDS TO LAUNCHER PUTTING EIGHT ARM/INHIBIT SWITCHES TO ARM AND BOTH SAFE/OPERATE PLUGS TO OPERATE.

2400: FOC STARTS PROCESS OF ASSIGNING MISSILES (TUNING)

TAB B ALL B6

2400: CDCO b6 REPORTS OVER TG COMMAND NET TO NS THAT SARATOGA HAD "BIRDS AFFIRM, BIRDS AWAY, SALVO SIZE TWO, ON TRACKS 4476, 6337, 6172".

0002: TAO TO TAS TO FOC REQUEST HOW LONG BEFORE READY? AFT MOUNT (FC3 b6 ANSWERS, 45 SECONDS.

0003: TAO SAYS TAKE TRACKS WITH 2 MISSILES.

0003-PLUS: FOC SAYS BIRDS AFFIRM.

0004: TAS TELLS FOC "FREE TO TAKE."

0004: TAS RELEASES "HOLD FIRE" BUTTON.

0004 PLUS: FOC ASSIGNS LAUNCHER DIRECTOR B DEPRESSED FIRING AUTHORIZED AND SELECTED 2 MISSILE SALVO, STATES I'M PREPARED TO FIRE. ON TAS ACKNOWLEDGEMENT PUSHES FIRE BUTTON.

0004:41: FIRST MISSILE FIRED.

0004:43: SECOND MISSILE FIRED.

0004:58: FIRST MISSILE IMPACT.

0005: SECOND MISSILE IMPACT.

0005 PLUS: CDC FULLY REALIZES MISSILES FIRED.

0006 PLUS: SEARCH AND RESCUE EFFORTS INITIATED.

RECONSTRUCTED SEQUENCE OF EVENTS

J004:41: FIRST MISSILE FIRED.

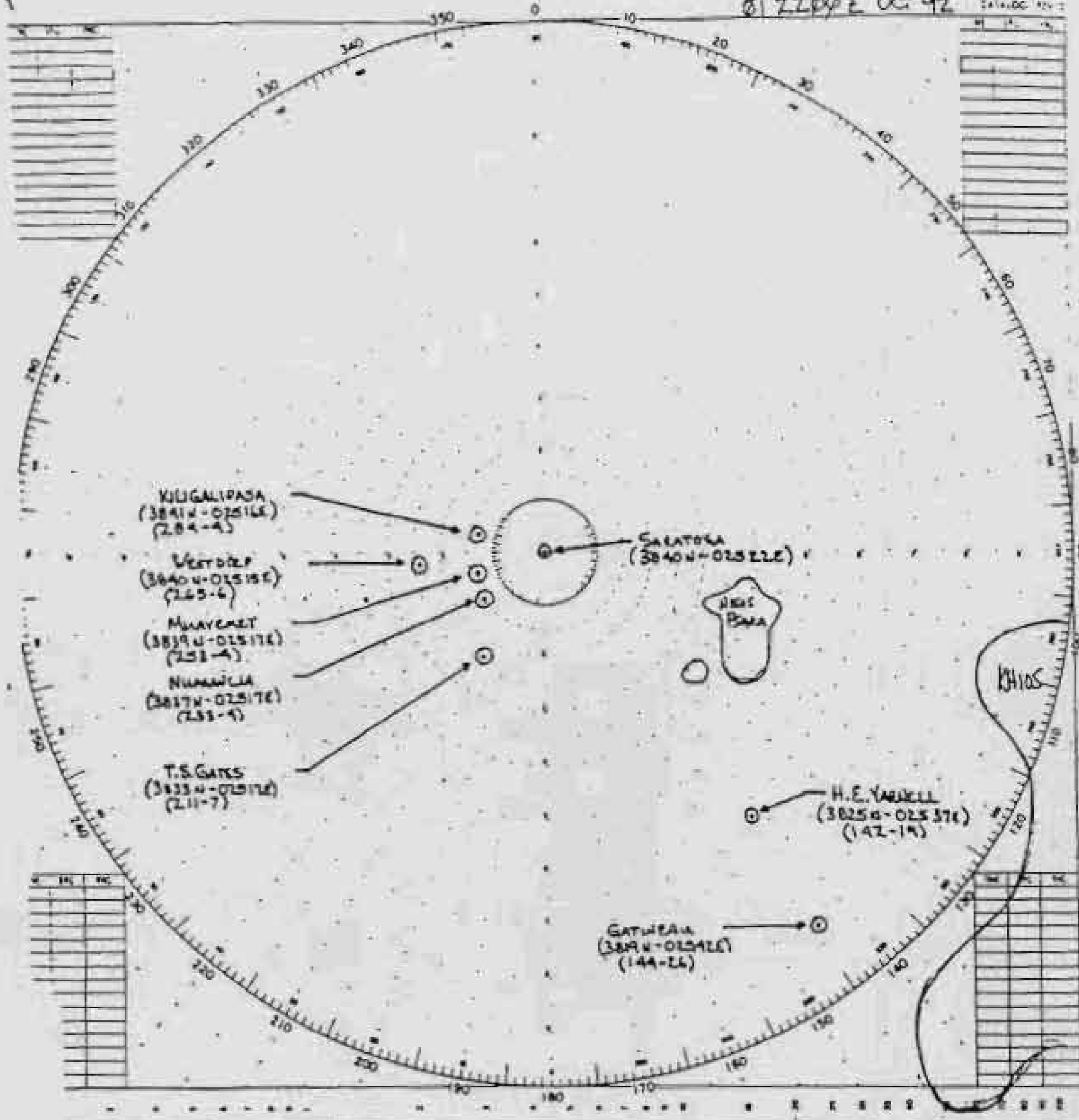
0004:43: SECOND MISSILE FIRED.

0004:58: FIRST MISSILE IMPACT.

0005: SECOND MISSILE IMPACT.

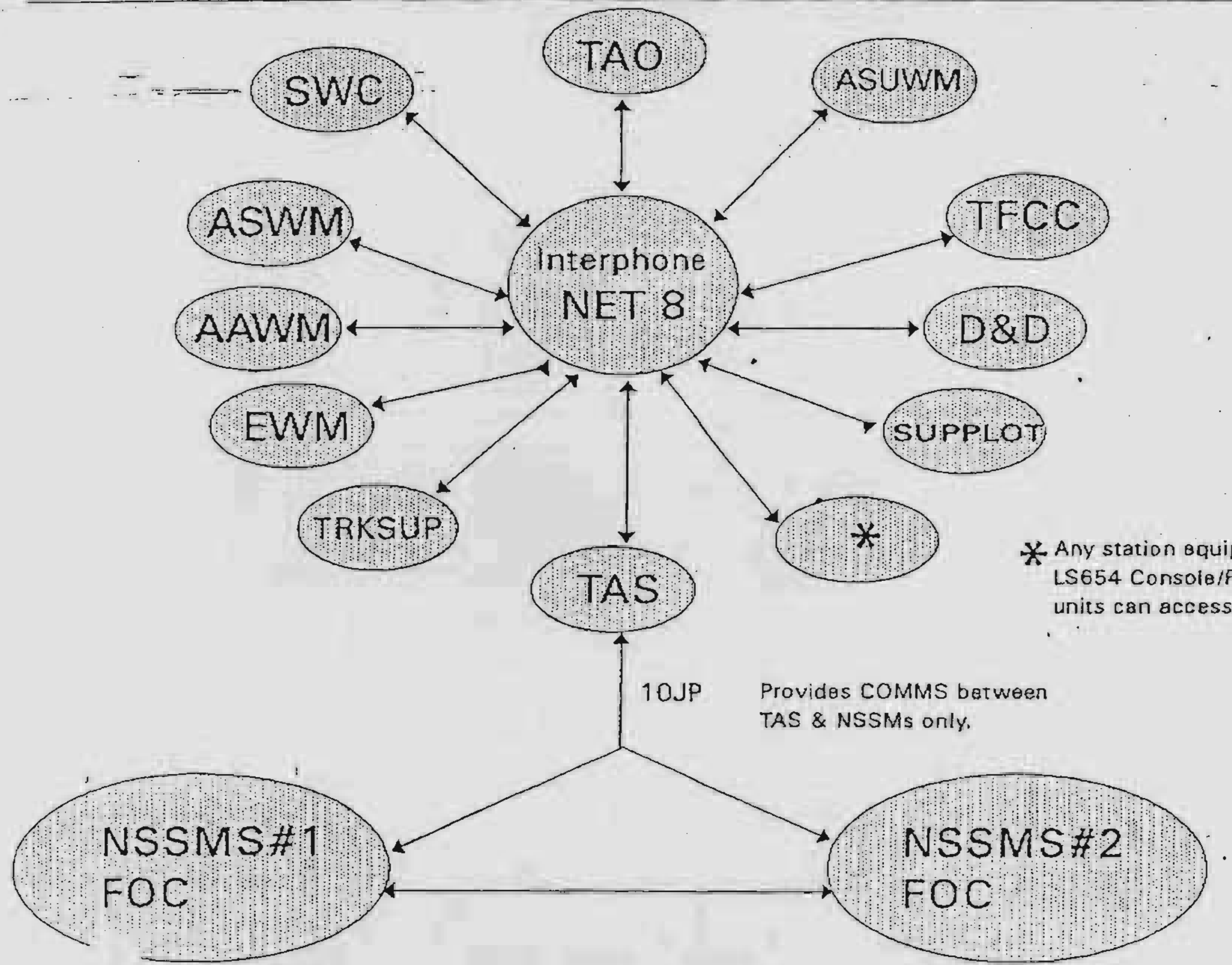
0005 PLUS: CDC FULLY REALIZES MISSILES FIRED.

0006 PLUS: SEARCH AND RESCUE EFFORTS INITIATED.



TAB C

NATO Seasparrow Surface Missile System



FINDINGS OF FACT

1. At 0004 02 October 1992 (2204 GMT 1 October 92) during NATO exercise Display Determination, USS SARATOGA (CV 60) fired two NATO Seasparrow missiles (NSSMS) from itş AFT port launcher, impacting the TCG MUAVENET (DM-357), which was approximately 3NM away. The missiles fired were RIM-7M (MWL001183F1-CELL1) and RIM-7M (QMB00185H-CELL5). USS Saratoga did not intend to authorize the actual release of these missiles. (Exhibit 156, Explosive Mishap Report).

2. At 0004 02 October 1992 (local), (012204Z) USS SARATOGA (CV 60) was in the Aegean Sea on a course of 345 speed 25KTS at position 3840n-02522e. (Exhibit 133). The bearing to the Turkish ship Muavenet (DM-357) was 232 degrees true, 5,800 yards at time of firing. Overall disposition of ships is contained in exhibit 161.

3. A preliminary investigation into the NSSMS firing accident on board SARATOGA on 2 October was done by Chief Of Staff SIXTHFLT, Captain immediately following the accident (from 0315 to 0815 2 October 1992). (Exhibit 1).

4. The Sea Sparrow Missile system was designed primarily for use as a point defense surface to air system with a surface to surface mode capability. (NAVSEA OP 3594).

ENCLOSURE (2)

ALL B6

5. The NATO Seasparrow Surface Missile System (NSSM) on USS SARATOGA consists of a Guided Missile Fire Control System (GMFCS) MK91 MOD 3, Guided Missile Launching System (GMLS) MK29 MOD 1 and the RIM-7M missile and is a subsystem of the AN/SWY-1(V) Self-Defense Surface Missile System (SDSMS). (SW810-AD-MME-OIO(C) Maintenance Manual).

6. The MK23 MOD 7 Target Acquisition System (TAS) performs search, track, IFF/SIF, threat evaluation, engagement scheduling and is the other subsystem of the SDSMS. (SW810-AD-MME-OIO(C) Maintenance Manual).

7. The aft GMFCS includes a radar set, Firing Officer's Console (FOC), Computer Complex and Low Light Level Television (LLTV) system, all located on sponson 12, port side where the MK132 MOD 1 launcher is also located. (SW810-AD-MME-OIO(C))(Ship's diagram).

8. Low Level Light Televisions on SARATOGA are in storage and not installed on NSSMS system as intended. (pg. 926)

9. No evidence was presented that suggested any intentional criminal act by any service member directly or indirectly caused the accidental firing of two Nato Seasparrow missiles on board USS SARATOGA (CV 60) on 2 Oct 1992.

10. LCDR ______ of the NATO Seasparrow Surface Missile System Project Office, Washington, D.C., an expert requested to assist Court of Inquiry stated: there was no mechanical or system failure and the system "behaved as designed".

11. Experts testified that the short time of flight of both NATO Seasparrow missiles would have required instantaneous action by the Target Acquisition System (TAS) or Firing Officer Console (FOC) operators after firing to secure power to the controlling director in order to affect flight prior to impact.

12. FC3 B6 FOC, confirmed that NATO Seasparrow school provides formal instruction on the procedure to secure radar illumination, and had he been instantaneously alerted to do so he might have been able to "break" illumination during missile flight.

13. One of two missiles launched was the RIM 7M HOTEL BUILD version and experts testified that it probably would have continued to fly to impact even if director power had been secured after launch.

14. Results of urinalysis on all personnel involved are pending. Blood tests were negative. Subject tests were conducted on the following personnel:

B6

ALCBG

B6 Matter noticed

by the Court).

15. SARATOGA provided immediate medical, EOD, and Rescue and Assistance support to MUAVENET, transporting Medical teams aboard, evacuating wounded and providing ordnance assistance and general damage control support. USS THOMAS S. GATES, USS DETROIT and Helicopter Antisubmarine Squadron Nine also supported rescue operations. (Exhibits 157, 158, 159, 101, & 102).

16. Positions of ships as noted on JOTS (Exhibit 162) and as recalled by Staff ASUW Watch Officer (Exhibit 161) were not in agreement. On JOTS Plot - MUAVENET is shown as southern most ship of three in column. On Exhibit 161, MUAVENET is shown as center ship with NUMANCIA as southern most unit.

17. At the time of the accidental firing of the NSSMS, the following personnel were manning watchstations in CDC and directly involved in the operation:

CDR B6	Combat Direction Center Officer (CDCO)
LT B6	Tactical Action Officer (TAO)
LT B6	Ship's Weapons Coordinator (SWC)
FC3 B6	Target Acquisition System (TAS)

also present in CDC; oncoming TAO LT B6 and backup TAS/Point Defense Weapons Console (PDWC) operator FC2 B6

In aft NATO Seasparrow Mount Control Room:

FC3 B6 Firing Officer's Console (FOC)

FC3 B6 Radar Set Console (RSC)

18. Personnel on watch in CDC at 2330 were:

CDR B6 CDC Officer (not a specific station, just present)

LT B6 , TAO

LT B6 SWC

19. Fire Control personnel called to man NSSMS watchstation after 2330 in Combat Direction Center were:

FC3 B6 TAS Operator

FC2 B6 PDWC Operator

in after NSSMS mount:

FC3 B6 FOC

FC3 B6 RSC

20. TAO, SWC and TAS communicate via interphone Net 8. (B6 Testimony).

21. Stations which normally communicate on interphone Net 8:

- TAO
- SWC Console Operator
- TAS Console Operator
- Support Plot (SUPPLOT)
- Anti Surface Warfare (ASUW) Module

- Anti Submarine Warfare (ASW) Module
- Anti Air Warfare (AAW) Module
- Electronic Warfare (EW) Module
- Track Supervisor (Detection and Tracking)
- Task Force Command Center (TFCC).

22. The SWC has no communications capability on any Net with NSSMS mount FOC/RSC. (B6 Testimony).

23. The TAS Console Operator in CDC communicates with the Firing Officer Console (FOC) Operator in NSSMS, AFT Mount Control Room on circuit 10JP. (B6 Testimony).

24. At the time of the accident, the real world weapons warning status was "white" and "safe."

25. At the time of the accident, the exercise scenario warning weapons status was "red" and "tight."

26. RADM Brown Force OTC, had developed an aggressive plan to simulate engaging Green forces at 2400, which included two S-3 with harpoon from SARATOGA airwing, THOMAS S. GATES engaging with missiles and WESTDIEP engaging with guns. This plan was transmitted by message and radio voice to supporting units sometime after 2330. He had not planned for SARATOGA to simulate employment of NSSMS in the surface mode in that plan.

ALL B6

27. The event (i.e., surface targeting exercise with NSSMS) was unscheduled and was unilaterally added on to the schedule of exercise events on the evening of the mishap by SARATOGA'S CDCO. (B6) (Exhibit 167).

28. Minutes before the commencement of the enhanced tactical phase of the exercise the CDCO, B6 informed the Battle Group Officer-in-Tactical-Command (BB) and Force ASUWC (November-Sierra) (RADM of his intention to simulate engaging three green tracks near Saratoga with NSSMS in the surface mode of operation. (Exhibit 168).

29. There was no direction from the Battle Group Anti-Surface Warfare Commander (ASUWC), Bravo Sierra, to SARATOGA to engage exercise surface tracks with NSSMS.

30. SARATOGA Commanding Officer was not aware that CDC intended to conduct simulated NSSMS engagements against three surface green tracks. (Exhibit 170).

31. There was no brief or pre-brief between CDC personnel and NSSMS personnel conducted prior to manning of the NSSMS as had been the practice in prior tracking exercises. (Exhibit 167; B6 Testimony).

32. Drills/exercises with NSSMS were normally scheduled in advance and no watchstander stated that they were ever initiated

ALL B6

past 2200. (B6 Testimony).

33. Earlier in the day, 1 October 1992, following a 50 hour exercise window the NSSMS fire controlmen were told to standdown from Display Determination. (B6 Testimony)

34. LT B6 was off-going TAO who was to be relieved at 2330. He remained on watch because of the upcoming 2400 COMEX of the enhanced tactical phase of the exercise and because of the fact that troubleshooting of Link 11 was in progress. (Testimony) (Exhibit 171).

35. LT B6 (SWC) stated that during his 2330 turnover to LT B6 he did not pass on that SARATOGA would be engaging green tracks with NSSMS as he had not yet been informed that SARATOGA would be doing so. (B6 Testimony).

36. B5

37. TAO (LT B6 talked directly with TAS to "Take tracks" and "How long till you're ready?" Also through SWC, "Let me know birds affirm/birds away."

38. LT B6 was not continuously on NET 8 between 2330 and 0004 on 1-2 October 1992. (Exhibit 171).

39. Prior to the accident, the Link 11 picture was regarded as degraded. (Testimony, B6 Testimony, Exhibit 171).

40. At 2328, CDCO, CDR B6 disclosed a plan to simulate engaging 3 green tracks with SARATOGA NSSMS at 2400 exercise commencement. (Exhibit 171).

41. TAS was not manned at 2330 and a normal watch-to-watch turnover did not take place. (B6 Testimony).

42. At 2330, LT B6 (TAO) called the OEM Workcenter Office reaching FC1 B6 and ordered that fire controlmen (FCs) man the NSSMS for a surface tracking exercise. (Exhibit 171).

43. At 2332, FC1 B6 called FC1 B6 (NSSMS Supervisor) to awaken FCs to man aft NSSMS for tracking exercises. (B6 Testimony).

44. At 2332, NSSMS aft launcher personnel (FC3 B6 /FC3 B6 B6) were sleeping in their work space. (B6 B6 Testimony).

45. At 2335 FC1 B6 awakened FC3 B6 and FC3 B6 and then left the space. (B6 Testimony).

46. FC3 B6 stated that he thought the event was initially

ALL B6

an exercise based on FC1 B6 wake up information. (B6 Testimony).

47. At approximately 2338 FC1 B6 received a second call from the TAO urging him to hurry to get Fire Controlmen manned or that he, the TAO, was going to call Air Defense or something over the 1MC announcing system. (Exhibit 171).

48. At approximately 2340, FC1 B6 awakened FC3 B6 and FC2 B6 sleeping in berthing compartment to man CDC. He urged them to hurry and stated Air Defense Station might be called away. (Exhibits 167,171,189; B6 Testimony)

49. At about 2345 no headset was available for the TAS operator (B6) when he reported to CDC. (Exhibits 166 & 167) (B6 Testimony).

50. FC2 B6 arrived in CDC after FC3 B6 who was by then at the TAS console. He principally occupied himself with solving headset availability issue with LT B6 and OS1 B6 (Exhibit 166).

51. At approximately 2352 TAS operator (B6 designated three surface tracks to the Firing Officer Console (FOC) operator (B6 , in aft NSSMS. (Exhibit 1).

52. The nationalities of the designated ships were one Spanish

and two Turkish ships. (Dur Testimony).

53. FOC operator B6 was unaware of the nationality of the three surface ships he was tracking/engaging. (B6 Testimony).

54. At 2353 TAS operator (FC3 B6) requested permission to "arm and tune" from SWC B6 who relayed to TAO. TAO B6 granted permission and SWC B6 passed permission to TAS Operator shortly thereafter. (Exhibits 167 & 171) (B6 Testimony).

55. SARATOGA FOC and TAS console operators understand the use of the term "arm and tune" to require the actual arming of NSSMS in preparation for a real-world engagement. (B6 Testimony).

56. Neither the TAO (LT B6 nor SWC (LT B6 appreciated the significance of the order to "arm and tune". (exhibit 171) (B6 Testimony)

57. At approximately 2354 TAS operator ordered "arm and tune" to aft NSSMS. (Exhibit 167) (B6 Testimony).

58. FC3 B6 when questioned by aft mount personnel if "this is the real thing", replied to the mount "this is real world" or "arm & tune, this is real" without getting confirmation from TAO

or SWC. (Exhibit 167) (B6 Testimony).

59. The term "tune" as applied to the 7M series of the NSSMS is without meaning and is an anachronistic holdover from an earlier series. (B6 Testimony).

60. The term "arm" implies the act of turning the safe/operate plugs to operate and placing the arm/inhibit switches to the armed position. (B6 Testimony).

61. At approximately 2355, FC3 B6 went to the launcher and put eight arm/inhibit switches to "arm" and turned both safe/operate plugs to "operate". (B6 Testimony).

62. Two S3Bs were launched from SARATOGA at time 2350 and 2356 on 1 Oct 92. FC3 B6 stated that he heard jets turning on deck while on launcher. (Air Dept logs) (B6 Testimony).

63. At 2400, FOC operator B6 ; started assigning the missiles.

64. FC3 B6 (FOC Operator) assigned ("tuned") a total of 7 missiles. (B6 Testimony).

65. At 2400, SARATOGA CDCO (B6 reported over TG Command Net to NS that SARATOGA had "birds affirm, birds away, salvo size two, on track 4476, 6337, 6142." (Exhibit 137)... indicating that

SARATOGA had simulated engaging each target with two NSSM.

66. At 0002 TAO asked TAS "how soon before you are ready". TAS relayed Mount response was 45 seconds. (B6 Testimony) (Exhibit 167).

67. At approximately 0003, TAO B6 gave the "take" order. (Exhibits 17, 167) (B6 Testimony).

68. B5

69. At approximately 0003, 2 October, TAS relayed to FOC operator the TAO's "free to take" order. (B6 Testimony).

70. At approximately 0004, 2 October, FOC operator (FC3 B6 engaged "firing authorized button", selected salvo size 2, assigned the launcher to director B and stated to TAS he was preparing to fire. (B6 Testimony).

71. Upon TAS operator (B6) acknowledgement, FOC operator B6 pushed the fire button for a two missile salvo. (B6 Testimony).

72. At 0004:41 and 0004:43 two NATO Seasparrow missiles were fired from the aft NSSMS launcher. (Exhibit 116).

73. At 0004:58 and 0005 respectively the two missiles struck the Turkish ship Muavenet in the bridge area. (Exhibits 80 & 116).

74. USS Saratoga Commanding Officer did not give "batteries released" or permission to fire. (Exhibits 170 & 171).

75. USS Saratoga Commanding Officer was not on the bridge or in CDC at time of NSSMS firing. (Exhibit 170).

76. LT B6 testified that he would have stopped the whole process had he thought it was anything other than exercise. (B6 Testimony).

77. TAS console was in training mode at time of firing to eliminate the nuisance of the frequently sounding alert buzzer which occurred when in non-training mode. (B6 Testimony).

78. There is no taped recording of Net 8.

79. LTJG B6 in SUPPLOT reports hearing on Net 8: "Take the track" not "Take the exercise track" then "What do you mean birds away? I thought you said this is real world. I never said that this was real world, it's an exercise, it's all an exercise. I thought that you said this was real world...I thought this was real world." (Exhibit 21).

80. IS2 B6 SUPPLOT Supervisor, said that while monitoring Net 8 between 2345 to 0005 he <u>never</u> heard the phase "<u>exercise track</u>" or "<u>simulate</u>" and that "he and his shipmates got the impression that it was a very realistic exercise. It sounded very real." (Exhibit 22).

81. Watchstanding personnel stated that they considered that when the CDCO B6 was in CDC, he had ultimate responsibility.

82. LT B6 TAO, generally understood the significance of the term "arm and tune" but did not question the request when he gave the command to the SWC and TAS Operator as he thought everyone understood it was an exercise. (Exhibit 167).

83. FC3 B6 on board approximately 2 years, who worked in the aft NSSMS launcher workcenter, never remembered hearing "simulate or exercise arm and tune" during his time onboard, including numerous tracking exercises. (B6 Testimony).

84. OSC B6 Qualified SWC, OI Division LPO and CPO in charge of training, when asked "should SWC know what arm and tune means?" replied: "naturally." (B6 Testimony).

85. OSC B6 who has stood SWC since May 1992 stated "arm and tune" was never briefed during SWC training. He remembered

one TAO/SWC classroom training session since April 1992. OSC

is not SWC qualified yet as he has four sections to be signed off. OSC B6 reported to Saratoga in April from 3 years instructor duty at Fleet Training Unit.

86. CWO2 B6 SARATOGA's GQ TAO, stated in testimony: "It's my opinion that those words ["arm and tune] would not be used unless it is an actual live firing" and "I have never heard any discussions about arming or tuning or anything of that nature". (B6 Testimony).

87. CWO2 B6 SARATOGA's GQ TAO, stated in answer to question "If you are TAO during an exercise and SWC requested to arm, what would your reaction be?" "The response would be NEGATIVE". (B6 Testimony).

88. LT B6 (a qualified SWC) said he was asked permission to "arm and tune" two or three days before the accidental firing by the Point Defense Warfare Coordinator (PDWC) console operator and he said "NO" as SWC.

89. LT B6 (certified as both a qualified SWC and TAO) stated that during detect to engage tracking exercises in the past: "I have not heard the command 'arm and tune' before." He was not familiar with the common AAW terms: cover, take, birds affirm, birds away, cover and company, continuing, mark india, engageable, and the general targeting sequence. (B6 Testimony).

90. LT B6 (a qualified SWC), when asked "What would your reaction be when a TAS operator turned to you and passed request permission to arm and tune", he said "I would tell him to STOP. Ask him why he thought they needed to do that. What's in their mind? What are they doing? It's an exercise." (B6 Testimony).

91. LT B6 (a qualified SWC), when asked how he came to appreciate the significance of "arm and tune", stated "Previous experience; in AIR-TO-AIR missile exercises, one of last steps in check off list is "arm and tune." (B6 Testimony).

92. LT B6 (a qualified SWC), in reply to the question "Have you heard the term 'arm and tune' before" stated "I have <u>never</u> heard that term in terms of a detect to engage or reaction exercise. Yes, I'm aware of it as part of the Seasparrow procedures but not a part of a raid exercise".

93. LT B6 (a qualified SWC), answered that in going to yellow from white readiness condition, he would "call air defense teams but would, he stated, <u>not</u> activate weapons systems." (Note. This is contrary to ship's battle doctrine.) However, if it went to red he would start arming.

94. During LT B6 testimony in answering the question of "Under what conditions as SWC would you question an arm order from the TAO" he stated "If I thought something unsafe; poor

judgment; better idea." (B6 Testimony).

95. The court of inquiry initiated requests to appropriate school/training commands to ascertain what is taught as doctrine or used as the standard in Detect to Engage Terminology during an exercise or tactical firing. Also, what procedures are taught to distinguish between actual firings and non-fire exercises, and what system configuration is used for each. Also questioned was the term "arm and tune" as standard terminology. (Exhibit 78).

96. Answers from FCTCLANT; FCTCPAC; Combat System Tech School Commander, Mare Island; NAVGMSCOL, Dam Neck; Surface Warfare Officer school; and COMFLOATTRAGRULANT were contradictory with regard to the term "arm and tune." Answers varied from "not applicable" and not taught in TAS engagement sequence", to "standard terminology for both tactical and training evolution." Feedback also indicated that firing procedures and firing doctrine is not taught at several commands and were the responsibility of individual ship's doctrine. (Exhibit 78).

97. At the time of firing, both the Ships Weapons Coordinator (SWC) and the Tactical Action Officer (TAO), LT B6 and LT B6 were each certified at both the SWC and TAO watch stations. (Exhibits 103 - 106).

98. LT B6 is a 1310 HS (ASW) trained officer who completed a squadron tour with HS-11 (east coast) a tour at Naval Post

Graduate School receiving a MS in Computer Science followed by assignment to SARATOGA. He is assigned as Assistant Combat Decision Center Officer (ACDCO) and is qualified at all officer watchstations in CDC. (LT B6 Service Record).

99. LT B6 on board since December 1991, was designated a TAO by Captain B6 on 14 September 1992, and designated a SWC in March 1991 by CDR B6 former operations officer. (LT B6 Service Record).

100. LT B6 is a 1320 VS (ASW) officer who completed a squadron tour with VS-30 (west coast), a tour at the Aviation Schools Command in Pensacola and then assignment to SARATOGA. He is assigned to the ASW Module, is qualified at all officer watchstations in CDC and served in the Strike Warfare Cell during Operation Desert Storm. (LT B6 Service Record).

101. LT B6 onboard since March 1990, was originally designated a TAO in April 1991 by CAPT B6 (former CO), then again by Captain B6 in August 1991. He was designated a SWC by Captain B6 in December 1991. He completed TAO school at FCTC Dam Neck on 23 February 1990. Captain B6 awarded him a Navy Achievement Medal in March 1991. (LT B6 Service Record).

102. CDR B6 CDC Officer, arrived on board in November 1991 without any pipeline training or school. (CDR B6 Service Record).

103. B6

and was Junior Petty Officer of the Month (June 1992) for his division. He completed Fire Controlman "A" school in November 1991. (FC3 B6 Service Record).

104. Using 1MC to pass "man Air Defense Stations," was an unwritten and fairly well understand policy which indicated that there may be a real world contact of interest or threat to USS Saratoga. (Exhibit 171).

105. Air Defense was purposely not called away by LT B6 (TAO) on the night of the accident so as not to confuse those personnel manning their stations. (Exhibit 171).

106. On at least one occasion during this deployment the policy of calling away "Air Defense Stations" on the 1MC was not followed and personnel were contacted by phone to man their stations for a suspected real world threat. (Terry Testimony).

107. FC3 B6 OEM workcenter aft NSSMS mount technician, armed the aft NSSMS launcher approximately 2 weeks prior to the accident in response to a potential air threat to USS SARATOGA. He also remembers tracking exercises approximately five times during the deployment against surface targets. (B6 Testimony).

108. On at least two occasions earlier during the deployment NSSMs was armed and assigned due to unknown aircraft/potential threats to USS SARATOGA. (B6 Testimony).

109. One of the two above-mentioned occasions occurred during a planned tracking and targeting simulation for NSSMS when a real-world "unknown low slow flyer" entered the SARATOGA OPAREA and was immediately tracked by TAS and NSSMS mount personnel. (B6 Testimony).

110. USS SARATOGA in-chopped to the Mediterranean Sea on 17 May 1992. (Dur Testimony).

111. SARATOGA Command Decision Center/Operations Department was given above average grades during pre-deployment workups by Training Carrier Group (COMCARGRU FOUR) Commander Second Fleet and Commander, Naval Air Force Atlantic (CNAL). (Exhibits 49 & 118).

112. Operations Department was awarded the COMNAVAIRLANT Battle E during the last competitive cycle as the best CV Operations Department on the East Coast. (Diehl Testimony).

113. Captain Chief of Staff Carrier Destroyer Group Eight stated he was involved in two pre-deployment evaluations of USS SARATOGA,and that her most recent workups were an improvement. He also stated individual watchstation

ALL B6

qualification or PQS are not looked at, however, workups do include evaluation of the ship's ability to defend itself. ((Testimony).

114. LT B6 Carrier Air Traffic Control Center Officer, described the high state of training and readiness of the SARATOGA air controller program as verified by numerous external certification/inspections. (B6 Testimony).

115. OSC B6 , SARATOGA OI workcenter supervisor and former FTG Guantanamo Bay CDC inspector until December 1991, evaluated USS SARATOGA number one of the CVs he inspected and well above average. He stated SARATOGA had one of the better training teams he'd looked at while at GITMO. (B6 Testimony).

116. LT B6 USS SARATOGA Engineering Training Officer, stated the engineering department has a comprehensive PQS program with PQS Boards, goal sheets, monthly reports, spot checks, and weekly division officer reports for the 650 man department. (LT B6 Testimony).

117. OSC B6 OI Division LCPO, stated the current Operations Department Combat System Training and Evaluation Team required by USS SARATOGA INST C3560.1E (CDC Doctrine) does not currently include experienced officer or senior FC personnel as part of the team and does not function as a full CDC training team. It has

ALL B6

not met monthly for training and coordination nor been utilized to any extent during the 5 months of the deployment. (B6 Testimony).

118. OSC B6 OI Division LPO and leader of SARATOGA Combat System Training and Evaluation Team, stated he did not continue including senior FC and TAO/SWCs in CDC team training because a Combat System Training Team was not a TYPE Commander requirement. B6 Testimony).

119. Refresher training for CV/CVN normally spans a two week period compared with five to six weeks for other surface combatants. (B6 Testimony).

120. FCC (SW) B6 stated he was on the Combat System Test and Evaluation Team during refresher training, but it hadn't met since then. (B6 Testimony).

121. Per SARATOGA Instruction 1500.1 (Standard Training Program), CDR B6 USS SARATOGA Operations Officer, is responsible for the training, qualifications and safe operation of Combat Direction Center and NATO Seasparrow systems.

122. Per SARATOGA Instruction 1500.1 (Standard Training Program), CDR B6 Combat Decision Center Officer was responsible for the training and qualification of TAO/SWC watchstanders.

123. LT B6 qualified SWC and TAO under instruction stated: there was no PQS signer list and that anyone can sign off PQS who is qualified to stand the watch. He had never read Commander Cruiser Destroyer Group Eight Battle Orders. (I B6 Testimony).

124. LT B6 Operations Department Training Officer, received no training or pipeline schools enroute to USS SARATOGA. (B6 Testimony).

125. LT B6 Operations Department Training Officer since February 1992, was not familiar with the NAVAIRLANT PQS Management Guide and did not consider himself the Operations PQS Coordinator. (B6 Testimony).

126. FC1 B6 OEM workgroup LPO stated PQS program charts "come and go," and were used during his first year on board and during refresher training. (B6 Testimony).

127. FC3 B6 was signed off on the MK23 TAS Console Operator PQS in September 1992. FC2 B6 (former training petty officer) testified that B6 had completed the PQS in the Spring of 1992, but the original book was lost. There was no oral or written final qualification exam, as well as no oral board given prior to the chain-of-command signing B6 qualification. (FC3 B6 Service Record).

128. LT B6 stated he has been standing TAO watches alone since August and has yet to get an appointment letter from the Commanding Officer.

129. LT B6 did not have a SWC board prior to designation as a Ship's Weapons Coordinator. (B6 Testimony).

130. LT B6 was certified TAO qualified without a three officer board as required by SARATOGA Instruction 3500.4B and COMNAVAIRLANT Instruction 3500.52F. (Exhibit 42) (B6 Testimony).

131. SARATOGA has no TAO Standardization Officer responsible for TAO training as called for in USS SARATOGA Instruction 3510.1D. (exhibits 14 & 167).

132. COMNAVAIRLANTINST 3500.52F states: Officer and supervisor watchstation qualification recommendations will be based upon written or oral examinations and observed watchstation proficiency at all watchstation levels (e.g., BT Top Watch, Track Supervisor, Communications Watch Officer, etc.). Supervisor watchstanders and officer watchstanders will gain qualification by passing an oral board interview. The oral boards will be conducted at the appropriate department or unit levels and will be comprised of the Department Head or Senior Officer in the specialty area and at least two currently PQS qualified watchstanders. (COMNAVAIRLANT 3500.52K).

133. The Commanding Officer did not chair or attend qualification boards for TAO. (B6 Testimony).

134. FC1 B6 . Leading Petty Officer for OEM Work Group, who has been aboard since March 1989, was unaware of PQS status for his workcenter's major CDC watchstations, was not aware of latest PQS for NSSMS and CIWS mounts, and was not PQS qualified to stand TAS console operator station as assigned. (FC1 B6 Testimony).

135. No one in NSSMS AFT mount #2 was PQS qualified on their watch stations. (B6 Testimony).

136. FC1 B6 upon arrival on board in March 92 made an unsuccessful attempt to acquire the required PQS books, however, there was no sustained effort by OEM Workcenter supervisory personnel. (FC1 B6 Testimony).

137. LT B6 did not recall training that discussed the NSSMS targeting sequence or how to conduct exercise tracking and targeting. B6 Testimony).

138. USS SARATOGA Combat Decision Center (CDC) personnel have accomplished several NSSMS surface to surface tracking exercises within the last several weeks. (Exhibit 17).

139. TAOs, SWCs and TAS/NSSMS equipment operators were unfamiliar with COMSURFWARDEVGRU TAC MEMO AZ3051-1-91 dtd 15

September 1991, "Carrier (CV/CVN) Self Defense Surface Missile System (SDSMS) Anti-Air Warfare (AAW) Operation" which provides most recent comprehensive guide in equipment and system operation. (B6 Testimony).

140. USS SARATOGA INST C3560.1E (CDC DOCTRINE) does not include the standard terminology IAW OP 3594 for firing a NSSMS in real world situations. (Exhibit 138).

141. The CDC team had conducted live fire NSSMS exercises, however, the CDC team has never engaged in simulated combat scenarios which would have familiarized them with the operational NSSMS firing sequence. (B6 Testimony).

142. FC3 B6 forward NSSMS Mount Captain, as designated by FC1 B6 stated there is no distinction between the basic AAW terms "birds affirm" or "birds away." (B6 Testimony).

143. When questioned about frequency and content of TAO training, LT B6 replied he remembered "a few training briefs on a few things." (B6 Testimony).

144. OPNAVINST 3120.32B states: Condition III watches require sufficient number of personnel to man a limited number of weapons systems for prolonged periods. Condition III must provide the capability to conduct or repel an urgent attack while the ship is

called to General Quarters.

145. B5

146. COMCRUDESGRU EIGHT Battle Orders (CCDG8 Inst. C3120.3) states ships will continuously steam in Condition III. (Exhibit 16).

147. Section 2 of SARATOGA CDC Doctrine does not include manning the TAS Console in condition III watchstations (para 220.2.g). OPNAVINST 5320 Ship's Manning Doctrine provides personnel to man this position. (Exhibit 138).

148. CTF60/COMCRUDESGRU EIGHT (RADM) was not aware that USS SARATOGA was not continuously manning the NSSMS during Condition III. (Dur Testimony).

149. COMCRUDESGRU Eight and Commanding Officer's night orders were routinely published and placed in the TAO notebook in CDC. (B4 Testimony).

150. The Commanding Officer did not routinely publish daily Commanding Officer's Combat Night Orders IAW USS SARATOGA Instruction S3510.1A. (B6 Testimony).

ALL B6

151. The COMCRUDESGRU Eight Night Orders and Commanding Officer's night orders were not promulgated prior to 2400 on the evening of 1 October 1992. (Testimony).

152. USS SARATOGA (CV 60) Inst. S3510.1A Battle Orders is unsigned and is contained in TAO's Battle Order Quick Reaction folder in CDC. (CV60INST S3510.1A).

153. Paragraph 4C, CV 60 Battle Orders CV60INST S3510.1A, calls for ability to change readiness condition in no more than 60 seconds from White to Yellow and Yellow to Red when condition I or III are manned, and is contained in TAO's Battle Order/Quick Reaction Folder in CDC. (CV60INST S3510.1A).

154. The Combat System/Readiness Condition Matrix contained in TAO's Battle Order/Quick Reaction Folder in CDC is from CV60INST S3510.1 (not the later 3510.1A). (Exhibit 18).

155. TAOs were not following CO's Battle Orders; these orders call for the arming of NSSMS ("arm/inhibit" switch to "arm" and "safe/operate" plugs to "operate") in all real world readiness conditions (White, Yellow, Red). This was not, however, put into practice. (B6 Testimony).

156. CWO2 B6 , SARATOGA's GQ TAO, said in answer to question. "If it [Weapons Warning System] went from White to Yellow, how would you know what to do, if anything, with your

ALL B6

weapons systems. Is there a doctrine somewhere?" "I don't know".

157. CDR B6 Combat Decision Center Officer, promulgated an unsigned chart calling for the arming of NSSMS following the calling away of Air Defense Stations (that is contrary to the CO's Battle Orders) and does not make it clear who is to request or initiate this action. This chart was posted only in the NSSMS mounts and not included in Battle Orders or CDC doctrine. (Exhibit 20). (B6 Testimony).

158. NSSMS Operational Guidelines (system condition vice threat warning levels) werenot posted in NSSMS Mount #2. (B6 Testimony).

159. TAS PQS BOOK (NAVEDTRA 43406A) does not address inadvertent or accidental firing in Safety Precaution Fundamental section, nor doesn't provide standard terminology to be utilized in a missile firing sequence (Exhibit 8).

160. The term/command "arm and tune" is not in the SWC or TAO PQS books per se. (Exhibits 11 & 12).

161. TAO PQS BOOK (NAVEDTRA 433043 dtd January 1988) does not address weapons release terminology, but does require the discussion of "Weapons Release Doctrine/procedures for each weapon system on board." (Exhibit 11).

162. Paragraph 5124.3 of USS SARATOGA CDC Doctrine covers the Weapons Liaison Officer (WLO) as a CDC position. This position is not referenced as a watchstation anywhere else in the CDC Doctrine or in the Ship's Manning Doctrine (SMD). (Exhibit 138).

163. There is no known PQS qualification book for WLO watch called for in SARATOGA's CDC Doctrine. FCC B6 was told that this was his GQ station on relieving the previous leading chief; no qualifications were specified. (B6 Testimony).

164. FCC(SW) B6 (Leading Chief Petty Officer for OEM Division) was unfamiliar with his Weapons Liaison Officer duties/functions in CDC, was not a qualified PQS TAS operator (a position that he oversaw), was not present for Overall Combat System Operational Tests (OCSOT), is not familiar with required frequency of OCSOT, is unfamiliar with SARATOGA Battle Orders, knowingly assigns non-PQS qualified personnel to Condition III watchstanding, and does not verify Fire Control Combat watchstation Watch Bills. (B6 Testimony).

165. One year ago OEM workcenter senior supervisory personnel consisted of two senior chiefs and Chief B6 One senior chief drowned in Haifa following a liberty launch sinking in December 1991 and the second detached in August 1992. CDR B6 pushed Bureau of Naval Personnel to provide a relief, but turned down the proposed relief due to obesity. (Exhibit 169).

166. Fire Controlmen are in Operations Electronics Missile (OEM) workgroup, which is one of two workgroups in OEM/OER Division. OEM/OER Division is one of two divisions in OP Electronic Material Officer (EMO) Branch. LT B6 is Branch Head; LT B6 Division Officer; FCC B6 is Leading Chief Petty Officer for OEM. (B6 Testimony).

167. LT B6 Electronics Material Officer, USS SARATOGA since February 1990, stated he "does not get involved with their warfare training," and "neither does LT B6 " referring to training of his men. He further stated that "operational readiness is the responsibility of the CDC officer," however, PQS comes through him and records are maintained in his office. (B6 Testimony).

168. LCDR B6 Assistant Intel Officer, narrated an 8 minute VHS video tape describing the Display Determination exercise schedule that was played on the ship's entertainment system four times on 30 September and two times on 1 October, all during working hours. (B6 Testimony).

169. USS SARATOGA conducted a safety brief prior to a live fire (NSSMS) exercise in March 1992 and at least one individual (FC2 B6 TAS operator) involved in the firing (and listed by name on the firing plan) was not present. (B6 Testimony).

170. FCC(SW) B6 OEM Workcenter NATO Seasparrow Ordnance

Handling Quality Assurance and Safety Observer, responsible for the Training/Certification of USS Saratoga NSSMS handling and loading was unaware of the explosive safety program required by COMNAVAIRLANT INST. 8023.53G and has not completed the requisite PQS. (Testimony).

171. There is no NSSMS loader/launcher ordinance handling PQS on board, nor has anyone (including FCC b6 who is currently certified) completed this PQS. (Testimony).

172. There is no CIWS loader system/watchstation ordnance handling PQS on board, nor has anyone completed this PQS. (Testimony).

173. NATO Seasparrow missile smooth log was not complete, lacking at a minimum loader crane weight test data and copies of previous firing reports. (Testimony).

174. LCDR of the NATO Seasparrow Surface Missile Project Office, Washington, D.C., stated the "test and training" mode should normally be used for training exercises. (Testimony).

175. CWO (USS HARRY E. YARNELL), a NATO Seasparrow System expert, said since TAS Console was in train mode at the time of firing, accurate information on system and missile status was not available to anyone in CDC (TAO/SWC/TAS).

ALL B6

Testimony).

176. DSOT on aft port NSSMS was performed on 1 Oct 92 at 11-1200 by FC3 B6 /FC3 B6 , resulting in a fully operational system. (Testimony).

177. The last OCSOT was performed on 16 Sep 92 by OS1 Molley resulting in a satisfactory evaluation. Testimony).

178. USS SARATOGA FC personnel have confidential clearances, which precludes the review of relevant NSSMS training material classified at a higher level. (Exhibit 142).

179. LCDR testified that AAW threat description documents, NSSMS ECCM training videos, and numerous CDC documents (battle orders, etc.) are classified secret. (Exhibit 148).

180. Per Article 0802 Navy Regulations, the responsibility of the Commanding Officer for his or her command is absolute. While the Commanding Officer may, at his or her discretion, delegate authority to subordinates, such delegation of authority shall in no way relieve the Commanding Officer of continued responsibility for the safety, well-being and efficiency of the entire command. (Navy Regulations).

181. According to the Ship's Manning Document (SMD), a CWO Weapons operator specialist should be assigned to the OEM Weapons

ALL B6

Workgroup in the Operations Department. In Saratoga this officer is assigned to the Weapons Department (ordnance handling). (SMD, Testimony).

182. The SWC console in Saratoga does not have a break engagement or assign launcher button. These buttons would permit SWC to exercise "command by negation" over TAS. Testimony).

183. Numerous safety check devices (at least eight) exist in the NSSMS. The Sea Sparrow missile will not fire unless these devices are properly manipulated. The existence of these devices is adequate to prevent the accidental or mistaken launching of a Seasparrow, if a proper non-fire safety checklist is followed. (Testimony).

184. As a result of the explosion of the NSS missiles in TLG Muavenet, five crewmembers of the Muavenet were killed and another thirteen seriously injured. (Exhibit 159) (Testimony).

185. AW3 B6 HS-9, a SAR swimmer, was injured when attempting to rescue an injured turkish sailor. (Exhibit 159) (B6 Testimony).

ALL B6

OPINION

1. That a series or combination of individual negligence(s) resulted in the accidental firing of two NATO Seasparrow missiles by USS SARATOGA (CV 60), striking TCG MUAVENET (DM 357) in the early morning of 2 October 1992 resulting in grave consequences. (FOF 1)

2. The accident, and resulting loss of life and injury was not caused by any criminal act by anyone aboard USS SARATOGA. (FOF 9, 14, 53)

3. The response by USS SARATOGA to the accident was immediate and superb in all areas; including rescue and assistance, EOD assistance, and medical care, without which four injured MUAVENET crewmen would not have survived. (FOF 15)

4. AW3 B6 U.S. Navy, of Helicopter ANTISUBMARINE NINE (HS-9) Squadron in assisting the injured members of TCG MUAVENET (DM 357), sustained a moderate injury to left leg. His injury is found to be in the line of duty not due to misconduct. (FOF 185)

5. Once launched; the short range, missile design and high speed made in-flight destruction (before impact) virtually impossible. (FOF 11, 13)

6. The principal cause of this accident was the order to fire the NATO Seasparrow Missiles, however, the primary precipitating factor of this cause was the failure on the part of CDCO, TAO or SWC to brief the TAS operator that the operation was an exercise vice an actual hostile threat/firing situation. (FOF 31, 33, 41)

7. FC3 B6 FC3 B6 and FC3 B6 properly performed launching of two NSSMS against a single surface target. Petty Officers B6 and B6 mount operators, complied with their orders as directed. (FOF 61, 63, 64, 69, 80, 71)

8. While RADM as Battle Group OTC had designed an aggressive plan to simulate engaging Green Forces at 020000 OCT 92, his actions neither directly or indirectly contributed to this accident. (FOF 26, 29)

9. Neither B6 physical and mental health, drugs nor alcohol were factors in this unfortunate accident. (FOF 14, Exhibit 1)

10. Although, the tone and nature of the phone call by LT to FC3 B6 initiated a vague notion, in the mind of the mount operator, that the situation was "real world" vice exercise, the confirmation of the "Arm & Tune" request by the TAS operator, FC3 B6 was essentially the catalyst which led to the firing of the missiles. (FOF 54)

ALL B6

11. The late decision by the Combat Direction Center Officer (CDCO) to simulate engaging GREEN forces with NATO Seasparrow, in surface mode, without ensuring timely and adequate briefing of all key combat system watchstanders contributed significantly to the accident. (FOF 27, 40)

12. The idea to conduct a simulated NATO Seasparrow surface engagement at such a late hour was not in itself unsafe. (FOF 40)

13. Multi-station attention in attempting to resolve degraded Link 11 problem, flag staff emphasis on its correction, late changes in enhanced tactical exercise rules, pressure of impending 2400 commencement of exercise, late decision to launch S3s and 2328 decision to man NSSMS tracking stations, caused higher than normal tension in CDC between 2330, 1 October, and 0004, 2 October, and was a source of preoccupation of the TAO's and SWC's attention. (FOF 34, 39, 62)

14. The lack of a pre-brief for all CDC personnel, specifically the TAS operator, caused a lack of situational awareness that contributed to the accident. (FOF 31)

15. While the TAS operator, FC3 B6 exhibited sound combat operational response on 2 October 1992, given the benign real

world threat condition, the seriousness of the action he was directing and the finality of completing the directed action, when queried by FC3 B6 "is this the real thing," he demonstrated insufficient caution and a lack of understanding of his role as an information conduit by not clearly asking SWC or TAO if they really wanted to fire NSSMS. (FOF 58, 60)

16. "Ingredients" that should have keyed participants that this was not a real world situation were:

- No "GQ"
- No 1MC announcement to "Man Air Defense Stations"
- No Senior Fire Control (WLO) in CDC
- No Senior Supervisor in mount
- Questions by NSSMS mount - "is this for real"
- FC2 B6 being summoned away to "worry" about headphones (FOF 54, 55, 104, 105)

17. "Ingredients" that should have signaled that key participants viewed the unfolding events as a real world situation were:

- Request for permission to Arm and Tune (FOF 54, 55)

18. "Ingredients" that contributed to misunderstanding the real world situation:

- LT B6 (oncoming TAO) telephone call to after NSSMS mount and tone in which he urged mount personnel to acquire target, urgency in getting manned and inquiry into whereabouts of Chief Petty Officer B6 was a factor in the junior personnel's misconception that something other than a routine tracking <u>exercise</u> was unfolding;

- no pre-brief or knowledge of the exercise;

- inadequate communication within and between the decision and weapons components of SARATOGA;

- the late hour (2330) of the exercise;

- TAO inquiry into how long until "missiles ready" and impression of urgency;

- a higher tension level in CDC. (FOF 31, 33, 37, 47, 48)

19. Lack of on station Condition III manning of TAS station in CDC and NSSMS mount in all likelihood contributed directly to the accident, in that operators were not continuously on station and aware of the exercise status. (FOF 18, 19, 27, 144, 145)

20. Captain B6 neither designed nor specifically authorized the exercise, nonetheless, as Commanding Officer, USS SARATOGA (CV 60) he is personally responsible for the safe operation of the vessel. Accordingly, he must be held accountable for the accidental release of NSSMS on 2 October 1992, and the resultant

THERE IS NO PAGE 5 --[signature]

damage, death, and injury to TCG MUAVÈNET (DM 357) and the officers and crew embarked thereon. (FOF 180, 133)

21. Commander B6 as Operations Officer, USS SARATOGA (CV 60) and Commander B6 as Combat Direction Center Officer, USS SARATOGA (CV 60) were directly responsible for the training, supervision, and suitability of the officers certified to stand watch in the Combat Direction Center; the lack of a specific regimen of instruction, and the paucity of training overall which evidences a failure to adequately discharge their obligation. (FOF 121, 122, 131, 132, 144)

22. Although currently not active, implementation of a formal training scheme similar to a Combat System Training Team will, by definition, facilitate an increase in the level of individual and team training in the Combat Direction Center and significantly enhance the quality of watchstander performance, while simultaneously ensuring combat personnel become qualified "in fact". (FOF 117, 118)

23. The failure of the Ship's Weapons Coordinator, Lieutenant B6 to properly brief the TAS and PDWC operators as to the upcoming DTE simulation and his reflex passing of the TAS operator's request to "arm and tune", without appreciating the

significance of the procedure, were pivotal components in the sequence of events that directly and significantly contributed to the accident. (FOF 54, 55, 56, 89)

24. The failure of the Tactical Action Officer, Lieutenant B6 to properly brief the TAS and PDWC operators, as to the upcoming DTE simulation and his reflex authorization to "arm and tune", without appreciating the significance of the procedure, were pivotal components in the sequence of events that directly and significantly contributed to the accident. (FOF 54, 56, 56)

25. The failure of the Target Acquisition System Operator, FC3 B6 to query the SWC and TAO as to whether they really intended to fire six NSSM at the surface contacts approximately three miles off the SARATOGA's beam was a pivotal component in the sequence of events that directly and significantly contributed to the accident. (FOF 58)

26. The focus of the EMO and the AEMO was reflective of their impression that the chain-of-command was substantially satisfied with their decision to view their roles as super equipment maintenance managers vice branch head, with the full range of duties that office implies, including supervisory responsibilities over watchstation operational PQS qualifications. (FOF 166, 167)

27. Lack of senior OEM Fire Control personnel resulted in a paucity of leadership, commitment and support within the OEM workgroup. The dearth of enlisted leadership resulted in an ineffective and unsatisfactory PQS watchstation program and, as a consequence thereof, the virtual absence of PQS qualification of FC personnel. (FOF 126, 127, 134, 135, 136)

28. The existing senior leadership in the OEM workgroup is virtually nonexistent. Supervisors do not take active roles in training, and do not fully understand the capabilities, limitations and operational parameters of their systems. (FOF 126, 127, 134, 135, 136)

29. Although senior leadership in the EMO chain-of-command was particularly ineffective, the junior personnel in the NSSMS workcenter exerted their maximum efforts to achieve watchstation competence. (FOF 103)

30. The absence of senior FC leadership in CDC, as well as in the NSSMS mount, directly and significantly contributed to the accident. The presence of an observing chief petty officer, FCC B6 or a first class petty officer, FC1 B6, could have broken the chain of events that unerringly led to the NSSM launch. (FOF 45, 145)

31. FCC B6 neglected his responsibilities as OEM leading divisional CPO in failing to remain abreast of watchstation qualifications, combat system testing, knowledge of SARATOGA Battle Orders / related instructions and PQS qualification enforcement. (FOF 135, 164, 171, 172, 173)

32. FCC B6 deficient watchstation knowledge (TAS), and inadequate execution of duty as ship's Weapons Liaison Officer (WLO) are only two examples of his ineffective performance in SARATOGA. However, what is most notable is the poor leadership and organizational skills he employed as FC division leading CPO. The lack of direction he provided for subordinate personnel was a direct cause of the inadequate training and poor coordination with CDC watchstanders. (FOF 170)

33. FC1 B6 as the Leading Petty Officer for OEM Workgroup, failed to provide adequate support for FCC B6 He was specifically deficient in his oversight responsibilities regarding the watchstation PQS training program. (FOF 134, 135, 136)

34. Commander B6 was aware of the lack of supervision in OEM and made specific attempts to have the Bureau of Naval Personnel (BUPERS) provide suitable replacement personnel.

However, there were no sustained efforts to improve the quality of supervision and leadership provided by the intra-divisional assets. (FOF 165, 164, 167)

35. In November and December of 1991 when OPSO and CDCO reported onboard, respectively, they believed they had a well above average Operations organization as a result of strong pre-cruise work-ups and being awarded the COMNAVAIRLANT Battle 'E' Award for the best Operations Department of all carriers on the eastcoast. (FOF 111, 112, 113, 115)

36. It is unclear whether the strong showing during pre-deployment readiness reviews, Training Readiness Evaluation (TRE), Refresher Training (REFTRA), Combat System Assist Visit, was indicative of the actual state of readiness in CDC, particularly, in the case of senior CDC watchstanders. (FOF 113, 115, 89, 156)

37. The Operations Department, specifically the CDC, has not maintained the level of training and readiness/qualification noted during work-ups and refresher training. Since completion of the pre-deployment training period compliance with the CDC Doctrine and other pertinent directives has been sporadic at best. (FOF 111, 117, 118, 120, 125, 126, 128, 131)

38. Frequent tracking exercises during the deployment were false indicators of total detect-to-engage effectiveness in SARATOGA. USS SARATOGA NATO Seasparrow and TAS personnel have had numerous opportunities to employ the system in tracking drills, however, the failure to engage the system's test and training mode has precluded the NSSMS, TAS, and other CDC watchstanders from receiving the complete training benefit, including the full detect-to-engage sequence, which involves assigning missiles, fire authorized and fire procedures. (FOF 77, 139, 141, 174, 175)

39. There is a lack of understanding of the methodology necessary for a complete shipboard PQS program among Operations Department leadership, including an appreciation for the proper way to obtain qualification signatures, track watchstation qualification programs, establish individual goals, monitor progress, conduct spot checks, and train junior personnel in these key areas. (FOF 125, 126, 134, 135, 136)

40. Although TAO or SWC PQS qualification books do not clearly address weapons release terminology or the difference between training and real weapons firings, a qualification board convened per PQS guidelines should have discussed these issues. (FOF 129, 130, 125)

41. USS SARATOGA (CV 60) leadership responsible for training TAO, SWC, and the CDC watchstanders relied too heavily on under-instruction watchstanding resulting in uneven levels of understanding and expertise. The lack of final qualification boards, where senior leadership can assess the quality and scope/breadth of their training program, were not routinely held. (FOF 125, 143, 161)

42. Based on the written reports that the Executive Officer and the Commanding Officer received, they were not aware of the poor state of the watchstander Personnel Qualification System within OEM Workcenter. (FOF 125 AND Exhibit 430

43. B5

44. Where the Operations Department Training program has developed in accordance with recognized Navy standards and mandated requirements, the driving force has been the work of junior officers or chief petty officers organic to the workgroup/center. (FOF 114, 115)

45. While SARATOGA has very solid safety and training programs, the Ships Self-Defense System has received inadequate attention. (FOF 116, 114)

46. Senior CDC watchstation and fire control system training and qualification programs have substantial deficiencies. (FOF 117, 128, 129)

47. Lack of effective cross division and total CDC team training resulted in inadequate appreciation of NSSMS performance and standard commands by SWC and TAO watchstanders. (FOF 118, 117, 89)

48. Although the CDC team has conducted two live NSSMS firing exercises in the last year and numerous non-firing exercise engagements, they have no common understanding of the terminology to actually arm and fire a missile in an operational environment. (FOF 89, 92, 96, 142, 143)

49. There is a wide disparity and acceptance within training commands of responsibilities to teach operators and control stations standard engagement terminology. They have ignored the issue and left to individual command (ship) the responsibility of developing their own procedures without appropriate guidelines. (FOF 96)

50. The lack of a school house approved exercise firing script and lack of emphasis on its necessity in all key Combat Systems control spaces contributed to SARATOGA not having their own firing script.

- The lack of a on-station firing script indirectly contributed to the accident. (FOF 96, 159, 161)

51. There is a general understanding of the significance of the term "arm and tune" or "arm" among TAO and SWC watchstanders but no one remembers actual training in these terms in the context of NATO Seasparrow Missile detect-to-engage training. (FOF 85, 92, 143)

52. Basic terminology and definitions training needs to be increased for CDC watch team personnel with emphasis on NATO Seasparrow Missile engagements. (FOF 89, 82, 92)

53. The majority of SWCs/TAOs on SARATOGA would not have given the command to Arm and Tune, under exercise conditions. It sounds inherently unsafe which would have precluded granting request. (FOF 87, 88, 90)

54. A lack of common terminology used by CDC watchstanders specifically the inconstant usage of "exercise," "simulate" or no

terminology during exercises contributed to the accident. (FOF 79, 80, 82)

55. A lack of good watchstation practices, (available sound powered phone at key stations, standard commands, rotating watch team assignments, and unfamiliarity with upcoming events contributed to the accident. (FOF 31, 37, 49, 50)

56. Although described in USS SARATOGA (CV 60) CDC Doctrine (USS SARATOGA INST C3560.1E), SARATOGA does not fully utilize the Weapons Liaison Officer (WLO) concept. (FOF 162, 1630

57. USS SARATOGA (CV 60) could not change readiness condition from White to Yellow in 60 seconds in accordance with CV60 Battle Orders (CV 60 INST S3510.1A) in Condition III without continuous manning of TAS and NSSMS stations. (FOF 153, 145)

58. FC watchstanders, supervisory and controlling station should possess a secret clearance in order to review threat description documents, ECCM training videos, and CDC documents. (FOF 178, 179)

59. Properly installed and functioning Low Level Light TVs could have given NSSMS FOC/ROC operators visual awareness during this incident 13 5 (FOF 8)

60. Although SARATOGA aired general Display Determination briefing for the crew on 30 September and 1 October over ship's TV network (some 5 days after COMEX), Condition III watchstations on 30 September, early 1 October and some firecontrolmen sleeping in work spaces probably precluded them from viewing TV presentations. (FOF 44, 168)

61. A majority of the negative findings and opinions expressed in this report reflect the actions of a very small percentage of the total crew on USS SARATOGA (CV 60). Considering ship's company and airwing crew size of 5000 plus personnel, this inquiry details principally the shortcomings of less than 50 people.

RECOMMENDATIONS

1. That considering the wide disparity in the level of basic PQS system knowledge and the varying degree of proper implementation of the PQS program within USS SARATOGA Operations Department, an immediate program to correct problems identified during this inquiry is recommended. There are sufficient written guidelines and sufficient talent on board to make these corrections. (Opinions 27, 33, 39)

2. That all USS SARATOGA CIWS, TAS, and NSSMS operators be required to requalify on their respective systems utilizing current PQS books, emphasizing review boards as the final qualification step. (Opinions 27, 33)

3. Until further guidance is received, the firing sequence terminology for actual tactical and non-firing exercise engagements for NSSMS and CIWS systems as determined by USS SARATOGA, be posted at all shipboard weapons control and weapons spaces, and utilized for detect to engage training. (Opinions 48, 51, 52, 54)

4. That USS SARATOGA fully activate Combat System and Tactics Training Team IAW CV60INST C3560.1E. (Opinion 22)

5. That USS SARATOGA TAO, SWC and WLOs and OEM personnel review SDSMS TACMEMO (COMSURFWARDEVGRU TAC MEMO A2305-1-91 dtd 15 September 1991) to properly understand tactics and operational modes for the system, as well as have a required reading program to maintain currency and keep abreast of tactics, threats, etc. (Opinions 28, 38)

6. That USS SARATOGA normally man TAS, NSSMS, and CIWS watches during :ondition III. (Opinions 19, 57, 63)

7. That the Weapons Liaison Officer (WLO) position be manned during Condition I (GQ) and during any major tracking/firing exercises as a liaison/assist between the TAO and the ship's weapons systems. The WLO watch should complete the PQS qualification for TAS, FOC, RSC, Remote Control Panel (RCP), and Local Control Panel (LCP) stations. (Opinion 56)

8. That USS SARATOGA utilize NATO Sea Sparrow Missile System Test/Training Mode to fully exercise Detect to Engage capabilities on board and train CDC & NSSMS stations in the entire firing sequence. (Opinion 38)

?. That USS SARATOGA TAS operators not operate console in training mode when actually defending the ship or firing missiles. In the training mode, improper information is displayed on the DDI, which could lead to the belief that the entire system is in training and could result in the loss of tactically significant alerts. (Finding of Fact 175, Opinion 28)

10. That USS SARATOGA use Daily System Operability Test (DSOT) and Overall Combat System Operations Test (OCSOT) as a training tool to improve total system understanding of key watchstanders. (Opinion 38)

11. That USS SARATOGA SWC, TAO, WLO, TAS, FOC and CIWS control station personnel utilize the repeat back sound powered phone communication protocol as standard practice to preclude miscommunications. (Opinion 55)

12. That USS SARATOGA FC supervisory personnel and those that stand ontrolling station watches be given a Secret clearance. (Opinion 58)

13 That TYCOMs and NAVSEA install level 7 ACDS as required to ensure interconnectivitiy and "command by negation" capability for SWC/TAO on SDSMS system. (Opinion 64)

14. That a generic tactical firing sequence and distinct non-firing training sequence checklist with standard terminology be provided in NAVSEA OP 3594 for firing the NSSMS, and that these be taught at TAO, TAS, and NSSMS operator/maintenance schools for each class of ship. (Opinion 49, 50, 54)

5. That the TAO and SWC PQS books include an actual tactical weapon release terminology requirement, as well as a requirement to differentiate between non-firing exercises and actual tactical firing sequences/procedures. (Opinions 40, 49, 50, 52)

16. That officer training pipelines for aviation officers ordered to CV ship's company be reviewed to ensure proper and specific CDC and Shipboard Weapons System indoctrination in ship type to which officers are being assigned. (Opinions 49, 52)

17. That OPNAV and TYCOMs initiate a review of the manning of the TAS, NSSMS and CIWS system to determine if additional FC or OS personnel are required to continuously man the TAS, NSSMS and CIWS during Condition III teaming. (Opinions 19, 57, 63)

18. That TYCOM and USS SARATOGA review duties, responsibilities and eadership manning within EMO Branch to ensure operational readiness and training needs for OEM workcenter are adequately addressed. (Opinions 26, 27)

19. That TYCOMs require a Combat System and Tactics Training Team on all aircraft carriers (similar to that described in USS SARATOGA INST C3560.1E) to function as a group of qualified experts to supervise, coordinate, evaluate, and troubleshoot the CDC training organization and exercises. (Opinion 22)

20. That CV TYCOMs (with NAVSEA support) convene a standardization board to develop common system employment phraseology and formulate standardized vstem settings to match various tactical and training situations. Results of this board should be issued as a directive to all CV/CVNs. (Opinions 48, 51, 52, 54)

21. That appropriate commanders direct that Afloat Training Organization's Combat System Training Group (CSTG) and COMCARGRU ONE/FOUR initiate action to ensure that in-depth knowledge of ship's weapon system by all CDC/OEM personnel is reviewed and provide training as necessary to improve this knowledge when required. Procedures adopted as a result of the standardization board addressed above should be included in training standards. (Opinions 36, 45, 46, 47)

22. That Fleet Commanders ensure the newly formed Afloat Training Organization (Combat System Training Group) is prepared to provide unit-specific weapons training to CV/CVNs and training in the evolution and execution of PQS. (Opinions 36, 37, 39)

23. That tailored Self-Defense Surface Missile System (SDSMS) Combat System Doctrine be developed for carriers. (Opinions 48, 49, 50, 52, 54)

24. That Tactical Action Officer school train in firing and non-firing exercise procedures as well as actual tactical firing terminology. (Opinions 49, 50)

25. That the following personnel be held responsible for their conduct in directly causing the firing of missiles against TCG MUAVENET by completion of the disciplinary actions listed below:

B6

B6

26. That the following personnel be held accountable for their deficient performance of duty in indirectly but significantly contributing to the firing of missiles against TCG MUAVENET by completion of the below listed disciplinary and/or administrative actions:

B6

B6

27. That no disciplinary or formal administrative action be taken against

(Opinion 65)

Rear Admiral, U.S. Navy
President

Rear Admiral, U.S. Navy
Member

Rear Admiral, U.S. Navy
Member

Authentication

Rear Admiral, U.S. Navy
President

Commander, JAGC, U.S. Navy
Counsel for the Court

Lieutenant Commander, JAGC, U.S. Navy
Assistant Counsel for the Court

ACL B6