



NAVY TRAINING SYSTEM PLAN

FOR THE

AN/SSC-12 SHIPBOARD AIR TRAFFIC

CONTROL COMMUNICATIONS SYSTEM

N88-NTSP-A-50-0003/D

AUGUST 2003

AN/SSC-12 SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS SYSTEM

EXECUTIVE SUMMARY

This Navy Training System Plan (NTSP) has been developed to identify the manpower, personnel, and training requirements associated with the AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System. The SATCC System provides intercom, interphone, and radio communications switching via digitized voice and data buses aboard Aircraft Carriers (CV) and Nuclear Aircraft Carriers (CVN).

SATCC System installation is ongoing and is scheduled for completion in Fiscal Year (FY) 06. Initial operating capability was achieved in FY98. Procurement of the SATCC System is being accomplished through a Non-Acquisition Category procurement action that utilizes the Abbreviated Acquisition Program. SATCC components are Non-Developmental Items obtained through Commercial Off-The-Shelf procurement.

The SATCC System is primarily operated by Air Traffic Controllers (AC), the Carrier Controlled Approach Officer, Landing Signal Officers (LSO), the Air Officer, the Assistant Air Officer, the Air Operations Officer, and the Assistant Air Operations Officer.

Maintenance of the SATCC System is performed at two levels: organizational and depot. Organizational level maintenance is performed by shipboard Electronics Technicians (ET). Litton Data Systems provides depot level maintenance under a Performance Based Logistics contract.

Current shipboard manning is sufficient to operate and maintain the SATCC System addressed in this NTSP. No changes to current manpower requirements are anticipated.

Initial operator training consists of Computer-Based Training (CBT) developed by the Program Office, Naval Sea Systems Command (NAVSEA) Code 06FI. Additionally, Space and Naval Warfare Systems Center (SPAWAR), Charleston, Detachment Norfolk, In-Service Engineering Activity personnel conduct familiarization training and On-the-Job Training (OJT) for both operators and maintainers prior to and during the initial at-sea period. The NAVSEA Program Office is funding two maintenance technicians from each activity receiving the SATCC System to attend Rapid Deployable Voice Switch IIA training at the Federal Aviation Administration (FAA) Academy, Oklahoma City, Oklahoma.

Follow-on operator training for Carrier Air Traffic Control Center personnel, LSOs, Air Operations Officers, and Assistant Air Operations Officers has been incorporated into the existing course at Center for Naval Air Technical Training, Pensacola, Florida, and the LSO School at Oceana, Virginia. The remaining operators will receive training via Personnel Qualification Standards and OJT. Follow-on SATCC System Maintenance training will be accomplished by sending selected ET personnel who are in receipt of Permanent Change of



N88-NTSP-A-50-0003/D
August 2003

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

Station orders to CVs and CVNs to the Rapid Deployable Voice Switch IIA course at the FAA Academy.

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

TABLE OF CONTENTS

	Page
Executive Summary	i
List of Acronyms	iii
Preface.....	vi
 PART I - TECHNICAL PROGRAM DATA	
A. Nomenclature-Title-Program	I-1
B. Security Classification.....	I-1
C. Manpower, Personnel, and Training Principals	I-1
D. System Description.....	I-1
E. Developmental Test and Operational Test	I-2
F. Aircraft and/or Equipment/System/Subsystem Replaced	I-2
G. Description of New Development	I-2
H. Concepts	I-3
1. Operational.....	I-3
2. Maintenance.....	I-5
3. Manning.....	I-6
4. Training.....	I-6
I. Onboard (In-Service) Training.....	I-9
J. Logistics Support.....	I-10
K. Schedules.....	I-12
L. Government-Furnished Equipment and Contractor-Furnished Equipment Training Requirements	I-13
M. Related NTSPs and Other Applicable Documents.....	I-13
 PART II - BILLET AND PERSONNEL REQUIREMENTS	 II-1
PART III - TRAINING REQUIREMENTS.....	III-1
PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS.....	IV-1
PART V - MPT MILESTONES.....	V-1
PART VI - DECISION ITEMS/ACTION REQUIRED.....	VI-1
PART VII - POINTS OF CONTACT.....	VII-1

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

LIST OF ACRONYMS

AC	Air Traffic Controller
Air Ops	Air Operations
AATCC DAIR	Amphibious Air Traffic Control Center Direct Altitude Identity Readout
ATC	Air Traffic Control
CATCC	Carrier Air Traffic Control Center
CATCC DAIR	Carrier Air Traffic Control Center Direct Altitude Identity Readout
CBT	Computer-Based Training
CCA	Carrier Controlled Approach
CDC	Combat Direction Center
CFY	Current Fiscal Year
CIN	Course Identification Number
CM	Corrective Maintenance
CNATT	Center for Naval Air Technical Training
CNO	Chief of Naval Operations
COMLANTFLT	Commander Atlantic Fleet
COMPACFLT	Commander Pacific Fleet
COTS	Commercial Off-The-Shelf
CV	Aircraft Carrier
CVN	Nuclear Aircraft Carrier
CVW	Carrier Air Wing
DA	Development Activity
ET	Electronics Technician
FAA	Federal Aviation Administration
FY	Fiscal Year
HSI	Human Systems Integration
ISEA	In-Service Engineering Activity
LRU	Lowest Repairable Unit
LSO	Landing Signal Officer
MRC	Maintenance Requirements Card

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

LIST OF ACRONYMS

MSD	Material Support Date
NA	Not Applicable
NAS	Naval Air Station
NAVAIR	Naval Air Systems Command
NAVEDTRA	Naval Education and Training
NAVPERSCOM	Naval Personnel Command
NAVSEA	Naval Sea Systems Command
NDI	Non-Developmental Item
NEC	Navy Enlisted Classification
NETC	Naval Education and Training Command
NSD	Navy Support Date
NTSP	Navy Training System Plan
OJT	On-the-Job Training
OOD	Officer Of the Deck
OPNAV	Office of the Chief of Naval Operations
OPO	OPNAV Principal Official
OS	Operations Specialist
PBL	Performance Based Logistics
PFY	Prior Fiscal Year
PICT	Programmable Integrated Communications Terminal
PM	Preventive Maintenance
PMA	Program Manager, Air
PMS	Preventive Maintenance System
PQS	Personnel Qualification Standards
PRI-FLY	Primary Flight Control
RDVS	Rapid Deployable Voice Switch
SATCC	Shipboard Air Traffic Control Communications
SPAWAR	Space and Naval Warfare Systems Center
TBD	To Be Determined
TD	Training Device
TED	Touch Entry Display
TTE	Technical Training Equipment

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

LIST OF ACRONYMS

UHF	Ultra High Frequency
UPS	Uninterruptible Power Supply
USW	Undersea Warfare
UW	Under Way
VDB	Visual Display Board

**AN/SSC-12 SHIPBOARD AIR TRAFFIC
CONTROL COMMUNICATIONS SYSTEM**

PREFACE

This Draft Navy Training System Plan (NTSP) for the AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System updates the Initial AN/SSC-12 SATCC System NTSP, A-50-0003/I, dated May 2000 (revised December 2000), in accordance with guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97.

Major changes included in this iteration consist of:

- Incorporation of latest program documentation.
- Incorporation of updated delivery schedules for the SATCC System.
- Development of Parts II and VII.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. AN/SSC-12 Shipboard Air Traffic Control Communications (SATCC) System

2. Program Element. 024112N

B. SECURITY CLASSIFICATION

- 1. System Characteristics** Unclassified
- 2. Capabilities** Unclassified
- 3. Functions** Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

- OPNAV Principal Official (OPO) Resource Sponsor/Program Sponsor CNO (N78)
- Developing Agency NAVSEA (06FI)
- Training Agency COMLANTFLT
COMCPACFLT
CNATT (FID N5)
- Training Support Agency NAVAIR (PMA205)
- Manpower and Personnel Mission Sponsor CNO (N12)
NAVPERSCOM (PERS-4, PERS-404)
- Director of Naval Education and Training CNO (N00T)

D. SYSTEM DESCRIPTION

1. Operational Uses. The SATCC System uses the Federal Aviation Administration’s (FAA) Rapid Deployable Voice Switch (RDVS) as its basic building block, and coupled with Programmable Integrated Communications Terminals (PICT), provides intercom, interphone, and radio communications switching via digitized voice and data buses aboard Aircraft Carriers (CV) and Nuclear Aircraft Carriers (CVN). The system provides voice communications between Air Traffic Control (ATC) operator positions and the following:

- Other ATC operator positions in the warfare center, through the intercom functions

- Command and control positions throughout the ship, through the interphone function
- Aircraft, through the radio function
- Shipboard telephone system and other interior communication systems

2. Foreign Military Sales. No foreign military sales are currently planned for the SATCC System. The United States Army and the FAA currently employ a version of the SATCC System.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. Since the SATCC System is a Commercial Off-The-Shelf (COTS) Non-Developmental Item (NDI), no developmental testing was conducted. Operational testing was successfully completed aboard the USS Enterprise (CVN 65) in 1998 and USS Harry S. Truman (CVN 75) in 2000, which included Landing Signal Officer (LSO) terminals and terminals installed in Primary Flight Control (PRI-FLY). The only modification made to the COTS equipment was to harden the components for shipboard environment.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The SATCC System is a direct replacement for the OJ-314(V) Voice Communication Switch and communication devices on the LSO platform and PRI-FLY.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The SATCC System is an integrated voice switching system that provides both air-to-ground and ground-to-ground connectivity to support the ATC voice communication function. The SATCC System permits simultaneous operation of all operational positions to either make radio transmissions, place calls, receive calls, or all. The SATCC System consists of terminals located at each operator position that control the communications switching equipment located in an equipment room. The SATCC System is modular in design and can accommodate up to 16 PICTs and 16 Touch Entry Displays (TED) located throughout the ship.

2. Physical Description

a. Equipment Room. The equipment room consists of multiple components as follows:

COMPONENT	QUANTITY	DIMENSIONS (INCHES)			WEIGHT (POUNDS)
		HEIGHT	WIDTH	DEPTH	
Uninterruptible Power Supply (UPS)	1	72.0	22.3	26.00	1,100

COMPONENT	QUANTITY	DIMENSIONS (INCHES)			WEIGHT (POUNDS)
		HEIGHT	WIDTH	DEPTH	
By-Pass Switch	1	17.0	12.0	7.00	20
3080G Switch (using UPS)	1	72.0	44.6	26.00	1,340
3080G Switch (with battery backup)	1	72.0	44.6	26.00	1,870
TED	1	15.5	10.0	14.60	20
PICT	1	7.5	7.5	5.87	8

b. Operator Locations. In addition to the TED and PICT in the equipment room, there are additional TEDs and PICTs located at operator sites throughout the ship. The physical dimensions and weight of these units are the same as those located in the equipment room. TEDs are terminals used by supervisors and controllers working radar display consoles in Carrier Air Traffic Control Center (CATCC), the LSOs on the LSO platform, and the Air Officers in PRI-FLY. PICTs are used by status board operators, data display operators, Combat Direction Center (CDC) operators, and persons in a command and control position directly associated with flight operations.

3. New Development Introduction. The SATCC System is an NDI that was introduced to the Fleet through COTS procurement.

4. Significant Interfaces. The SATCC System interfaces with Ship's Service Telephone System, Sound Powered Phone System, ATC Radios via Black Secure Voice Switch, ATC Audio and Video Recorder, 3-MC and 5-MC Flight Deck Announcing Systems, SRC-47 and SRC- 55 Flight Deck Communications Sets, and flight deck cameras.

5. New Features, Configurations, or Material. Not Applicable (NA)

H. CONCEPTS

1. Operational Concept. The SATCC System is operated in various locations throughout the ship as follows:

POSITION	OPERATOR	ITEM	QUANTITY	LOCATION
Carrier Controlled Approach (CCA) Officer	639X	TED	1	CATCC

POSITION	OPERATOR	ITEM	QUANTITY	LOCATION
CCA Supervisor	Air Traffic Controller (AC)	TED	1	CATCC
Marshal Controller	AC	TED	1	CATCC
Departure Controller	AC	TED	1	CATCC
Approach Controller "A"	AC	TED	1	CATCC
Approach Controller "B"	AC	TED	1	CATCC
Final Controller "A"	AC	TED	1	CATCC
Final Controller "B"	AC	TED	1	CATCC
Air Operations (Air Ops) Supervisor/squadron representative	AC	TED	1	Air Ops
Air Officer	13XX	TED	1	PRI-FLY
Assistant Air Officer	13XX	TED	1	PRI-FLY
Carrier Air Wing (CVW) LSO	13XX	TED	1	LSO Platform
LSO	13XX	TED	1	LSO Platform
PRI-FLY Supervisor	Aviation Boatswain's Mate	PICT	1	PRI-FLY
Visual Display Board (VDB) Operator	AC	PICT	1	CATCC
Marshal Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Approach Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Departure Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC
Air Ops Data Input Operator/Status Board Keeper	AC	PICT	1	CATCC

POSITION	OPERATOR	ITEM	QUANTITY	LOCATION
Land Launch Record Keeper/Data Input Operator	AC	PICT	1	CATCC
Air Ops Officer	13XX	PICT	1	CATCC
Assistant Air Ops Officer	13XX	PICT	1	CATCC
Strike Control Operator	Operations Specialist (OS)	PICT	1	CDC
Air Intercept Control Operator	OS	PICT	1	CDC
Under Sea Warfare (USW) Operator	Aviation Warfare Systems Operator /OS	PICT	1	CDC
Commanding Officer	13XX	PICT	1	Bridge

2. Maintenance Concept. SATCC System maintenance is based on two levels of maintenance, organizational and depot.

a. Organizational. Organizational level maintenance of the SATCC System is performed by the same Navy personnel in the Electronic Technician (ET) rating that maintain the CATCC Ultra High Frequency (UHF) communications equipment.

(1) Preventive Maintenance. Preventive Maintenance (PM) of the SATCC System is limited to cleaning, measuring, testing, and corrosion prevention. Apart from “general housekeeping,” cleaning and corrosion prevention is performed on an annual schedule in accordance with the preliminary Maintenance Requirements Cards (MRC). Measurements are taken and tests are conducted during monthly and quarterly maintenance checks and as required.

(2) Corrective Maintenance. Corrective Maintenance (CM) of the SATCC System includes fault isolation and replacement to the Lowest Repairable Unit (LRU), connector repair, and handset piece part replacement. The LRU for the switch and TED is defined to be the module. The LRU for the PICT is the entire unit, with the exception of the knobs.

b. Intermediate. NA

c. Depot. Depot level maintenance is provided by the contractor under a Performance Based Logistics (PBL) contract. The Navy Support Date (NSD) for the SATCC System is To Be Determined (TBD).

d. Interim Maintenance. Maintenance support will be available on an as-required basis through the Space and Naval Warfare Systems Center (SPAWAR) In-Service Engineering Activity (ISEA).

e. Life Cycle Maintenance Plan. The design of the SATCC System is such that, when properly maintained, it will support continuous operation throughout its projected ten-year service life.

3. Manning Concept

a. Maintenance Workload. The SATCC System requires 22 man-hours of annual preventive maintenance in accordance with the Preventive Maintenance System (PMS) and MRC package. Additionally, 21 man-hours of maintenance is required for Lay-up and Start-up PMS conducted in association with ship inactive periods. These maintenance man-hour estimates do not include communication checks for CATCC, LSO, and PRI-FLY. With the system being software driven, communications checks can be accomplished once prior to getting underway (accomplished by user or CATCC personnel as part of their normal underway checks) to verify operation. The LSO override interface is tested daily. Checks for system failures are conducted internally by system software. Technicians need only conduct maintenance actions when the equipment reports failures or when PMS and MRC requires. Along the same line the system is highly reliable and does not require a technician to be present in CATCC during night or bad weather flight operations to monitor the system.

b. Proposed Utilization. The SATCC System is maintained in an up-and-operating status 24 hours per day, seven days per week. The only time the system is taken down is during extended periods of ship inactivity such as a yard period or for annual cleaning and inspection.

c. Recommended Qualitative and Quantitative Manpower Requirements

(1) Operator. There are no billets dedicated solely to the operation of the SATCC System. The personnel who operate the SATCC System are filling watch-station requirements.

(2) Maintenance. There are no billets dedicated solely to the maintenance of the SATCC System. The same ETs that maintain the CATCC UHF communications equipment maintain the SATCC System.

4. Training Concept. NAVSEA Code 06FI and SPAWAR ISEA are providing initial operator and maintenance training to personnel at each activity receiving the SATCC System. Follow-on operator training for CATCC personnel, LSOs, Air Operations Officers, and Assistant Air Operations Officers has been incorporated into the existing course at the Center for Naval Air Technical Training (CNATT), Pensacola, Florida, and the LSO School at Oceana, Virginia. The remaining operators receive training via Personnel Qualification Standards (PQS) and On-the-Job Training (OJT). Follow-on SATCC System maintenance training will be accomplished by sending the same ETs that maintain the CATCC UHF communications equipment to the Rapid Deployable Voice Switch IIA course at the FAA Academy, Oklahoma City, Oklahoma.

Graduates of this FAA course will be awarded secondary *Navy Enlisted Classification (NEC) 14XX, AN/SSC-12 Communications System Maintenance Technician*. Formal follow-on training will begin when the new Secondary NEC (SNEC) is approved.

a. Initial Training

(1) Operator. Initial operator training consists of Computer-Based Training (CBT) in Compact Disk-Read Only Memory (CD-ROM) format delivered to the ship by the Program Office, NAVSEA Code 06FI, during the initial installation. In addition to CBT, familiarization training is conducted with each work center, and SPAWAR ISEA personnel provide OJT during the initial underway period. Quick reference guides are provided to the work centers along with vendor-supplied user’s manuals.

(2) Maintenance. NAVSEA funded maintenance technicians from the first installation site, USS Enterprise (CVN 65), to attend factory training in 1998. Beginning with the second installation, NAVSEA is funding two maintenance technicians at each activity receiving the SATCC System to attend RDVS maintenance training at the FAA Academy, in addition to the CBT and OJT described above. SATCC is the Navy term for RDVS. Personnel who completed initial maintenance training, either at the factory or the FAA Academy, are eligible to receive the new secondary NEC 14XX, AN/SSC-12 Communications System Maintenance Technician, when the new NEC is approved.

Title Rapid Deployable Voice Switch IIA Training
 CIN 40042
 Course Manager .. FAA
 Description This course provides training to Army, Navy, and FAA civilian Electronics Technicians, including:
 ◦ RDVS Operation
 ◦ RDVS Troubleshooting
 ◦ RDVS Component Replacement
 ◦ RDVS Preventive Maintenance
 Upon completion, the student will be able to perform organizational level RDVS maintenance without supervision.
 Location FAA Academy, Oklahoma City, Oklahoma
 Length 10 days
 RFT date Currently available
 Skill identifier ET, Secondary NEC 14XX (when approved)
 TTE/TD NA
 Prerequisite A-100-0140, Electronics Technician Strand “A” School

b. Follow-on Training

(1) Operator

(a) Carrier Air Traffic Control Center Personnel.

SATCC System operator information for CATCC personnel has been incorporated into the following existing courses at CNATT Pensacola. AC training is identified in detail in the Carrier Air Traffic Control Center Direct Altitude and Identity Readout (CATCC DAIR) and Amphibious Air Traffic Control Center Direct Altitude and Identity Readout (AATCC DAIR) NTSP, E-30-8502B/A, approved March 2000, and therefore will not be duplicated in this NTSP.

COURSE TITLE	COURSE IDENTIFICATION NUMBER
Carrier Air Traffic Control Center Operations, Class C1	C-222-2012
Carrier Air Traffic Control Center Operations Fundamentals Course, Class F1	C-222-2014
Carrier Air Traffic Control Center Team Training, Class T1	C-222-2017

(b) Landing Signal Officer.

SATCC System operator information for Navy LSOs has been incorporated into existing LSO courses at Naval Air Station (NAS) Oceana, Virginia. LSO training is identified in detail in the Aircraft Carrier Visual Landing Aid Systems Draft NTSP, A-50-9202B/D, dated February 2003, and therefore will not be duplicated in this NTSP.

COURSE TITLE	COURSE IDENTIFICATION NUMBER
Landing Signal Officer Initial Formal Ground Training	D-2G-0001
Landing Signal Officer Advanced Formal Ground Training	D-2G-0002
Landing Signal Officer Fleet Readiness Squadron and Training Command Squadron	D-2G-0003

(c) Air Officer and Assistant Air Officer.

Air Officer and Assistant Air Officer candidates are required to attend a two-day LSO indoctrination seminar at the LSO School, NAS Oceana. SATCC System Operator information is included in this seminar.

(d) Air Operations Officer and Assistant Air Operations

Officer. SATCC System operator information for Air Operations Officer and Assistant Air Operations Officer candidates has been incorporated into course *C-2G-2019, Carrier Air Traffic Control Center Operations Officer, Class C2*, at NATTC Pensacola. This training is identified

in detail in the CATCC DAIR and AATCC DAIR NTSP, E-30-8502B/A, approved March 2000, and therefore will not be duplicated in this NTSP.

(e) Combat Direction Center Personnel. CDC personnel, including the Strike Control Operator, Air Intercept Control Operator, Tactical Action Officer, and USW Operator, receive required SATCC System operator training by completing the applicable PQS.

(f) Bridge Personnel. Bridge Personnel obtain SATCC System operator training through OJT and any applicable PQS.

(2) Maintenance. The same FAA course that is being used for initial SATCC maintenance training will be used for follow-on maintenance training. Follow-on training will be accomplished by sending selected ETs that have Permanent Change of Station orders to CVs and CVNs to the Rapid Deployable Voice Switch IIA course at the FAA Academy, Oklahoma City. Follow-on maintenance training will begin when the new secondary NEC has been approved.

c. Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
Navy LSO NOBC 8662	◦ Qualified Fixed-Wing Pilot
Marine Corps LSO MOS 7594	◦ Qualified Fixed-Wing Pilot
AC 6902	◦ C-222-2010, Air Traffic Controller
ET	◦ A-100-0138, Electronics Technician Core “A” School ◦ A-100-0140, Electronics Technician Strand “A” School

d. Training Pipelines. NA

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. NA

b. Aviation Maintenance Training Continuum System. NA

2. Personnel Qualification Standards. The following Naval Education and Training (NAVEDTRA) PQSs are applicable:

PERSONNEL QUALIFICATION STANDARD TITLE	PUBLICATION NUMBER
Surface Warfare Officer (Warfare/Combat Information Center Watch Officer/Officer Of the Deck (OOD) Under Way (UW))	NAVEDTRA 43101-4E
CV/CVN Undersea Warfare Module Analysis	NAVEDTRA 43205-7A
Tactical Support Center Mission Coordination and Evaluation Officer	NAVEDTRA 43206-0C
Tactical Support Center Operations Control Watch	NAVEDTRA 43206-5C
Combat Information Center Common Core Watch Station Qualification	NAVEDTRA 43311-4
Surface/Subsurface Warfare Coordinator/Anti-Air Warfare Information	NAVEDTRA 43388-1A
CV/CVN Tower Operations	NAVEDTRA 43426-2C
CV/CVN Air Traffic Control Center	NAVEDTRA 43496-6C
CV/CVN Advanced Combat Direction/Combat Direction Center	NAVEDTRA 43496-7A

3. Other Onboard or In-Service Training Packages. Each ship has a locally prepared watch station checklist that personnel must complete prior to being qualified as a watch stander on the bridge. As the SATCC System is installed on each ship, SATCC System operator information will be added to these checklists.

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers. All deliveries under contract N65236-97-D-5022, with Litton Data Systems have been completed. Procurements of future SATCC System components will be made using COTS purchase orders.

2. Program Documentation. A Users Logistics Support Summary, NAVSEA 0204112N-794-D-P-O, was promulgated in June 2001. A Draft Operational Requirements Document is in work. When completed, this information will be included in future updates to this NTSP.

3. Technical Data Plan. MRCs and Maintenance Index Page have been developed. Commercial operator and maintenance manuals will be utilized to support the SATCC System. An Interactive Electronic Technical Manual on CD-ROM, using the approved Standard Generalized Mark-up Language format, was approved in September 2002.

PUBLICATION TITLE	PUBLICATION NUMBER	EFFECTIVE DATE
Integrated Communications Switching System Model 3080G Operator's Manual	TPM9712100	11 May 2000
Integrated Communications Switching System Model 3080G Operations and Maintenance Manual	TPM9903201	4 May 2001
Integrated Communications Switching System Model 3080G Users Manual	TPM9904300	4 May 2001

4. Test Sets, Tools, and Test Equipment. No special test sets, tools, or special test equipment are required to support the SATCC System. All hand tools and common electronic test equipment required to support the SATCC System are currently available in the maintenance work center.

5. Repair Parts. Repair parts for the SATCC System are provided by the Navy Inventory Control Point, Mechanicsburg, Pennsylvania, via a PBL Contract. The Material Support Date (MSD) was achieved in June 2001.

6. Human Systems Integration. Since the SATCC System is a COTS procurement action, the Navy had no additional Human Systems Integration (HSI) input into the hardware design, except those considerations during installation of the equipment to ensure units were positioned to provide ease of access for maintenance personnel and comfort of operation to the operators. The Navy has drawn from the HSI efforts put forth by the FAA in the development of the RDVS system, the FAA term for SATCC. The design processes conformed to best standard human engineering practices as defined in existing human factors engineering design standards.

All future CBT, CAI and ICW training material will be sharable content object reference model conformant and conform with the technical standards to run in the intended environment: classroom automated electronic classroom or learning resource center, Navy e-learning, AMTCS, or desktop (NMCI ashore or IT21 afloat).

The ECP process, in accordance with NAVAIRINST 4130.1C, is utilized to initiate upgrades to operational and training systems and allows for inputs to the affect on the human and MPT. All new engineering change proposals for SATCC take into consideration the human-machine interface for Operators, Maintainers and Support Personnel.

This system has no habitability impact. Manpower issues are covered in part II and III of this document.

Environmental and Occupational Safety and Health requirements meet federal, state, and local standards, regulations, and directives and are enforced by respective agencies, as applicable.

K. SCHEDULES

1. Installation and Delivery Schedule

ACTIVITY	PROCUREMENT DATE	INSTALLATION YEAR	SATCC MODEL
CV 63 USS Kitty Hawk	November 1999	FY01	AN/SSC-12
CVN 65 USS Enterprise	November 1997	FY97	AN/SSC-12A
CV 67 USS John F. Kennedy	December 2002	FY03	AN/SSC-12B
CVN 68 USS Nimitz	September 2000	FY02	AN/SSC-12B
CVN 69 USS Dwight D. Eisenhower	January 2000	FY02	AN/SSC-12
CVN 70 USS Carl Vinson	September 2000	FY02	AN/SSC-12B
CVN 71 USS Theodore Roosevelt	November 2001	FY02	AN/SSC-12B
CVN 72 USS Abraham Lincoln	September 2000	FY01	AN/SSC-12B
CVN 73 USS George Washington	November 2002	FY03	AN/SSC-12B
CVN 74 USS John C. Stennis	March 2002	FY02	AN/SSC-12B
CVN 75 USS Harry S. Truman	August 1999	FY99	AN/SSC-12
CVN 76 USS Ronald Reagan	September 2000	FY03	AN/SSC-12B
CVN 77 USS George H.W. Bush	March 2003	FY06	AN/SSC-12B

2. Ready For Operational Use Schedule. All systems will be ready for operational use upon completion of installation.

3. Time Required to Install at Operational Sites. Three months are required to install the SATCC System.

4. Foreign Military Sales and Other Source Delivery Schedule. NA

5. Training Device and Technical Training Equipment Delivery Schedule

a. Training Devices. NA

b. Technical Training Equipment. Computers that simulate the information sent to TEDs and PICTs will be used in place of the actual switch hardware for operator training. Operator Labs at CNATT Pensacola have been configured with replica SATCC TEDs for all supervisor and controller positions and replica SATCC PICTs for status board/data input operators.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Shipboard Air Traffic Control Communications Operational Requirements Document	Non-ACAT	NAVSEA	Draft is awaiting approval
Users Logistics Support Summary for the SATCC System	0204112N-794	NAVSEA	Approved Jun 01
Enhanced Terminal Voice Switch Navy Training System Plan	A-50-9701/A	PMA213	Approved Apr 99
Integrated Communications Switching System Model 3080-G Operator's Manual	TPM9712100	Litton/Amecom	Dec 97
Command Control And Communications C3 Systems Threat Assessment	ONI-TA-009-95	Office of Naval Intelligence	Approved Jul 95
Carrier Air Traffic Control Center Direct Altitude and Identity Readout (CATCC DAIR) and Amphibious Air Traffic Control Center Direct Altitude and Identity Readout (AATCC DAIR) NTSP	E-30-8502B/A	PMA213	Approved Mar 00
Aircraft Carrier Visual Landing Aid Systems NTSP	A-50-9202B/D	PMA251	Draft Feb 03

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the SATCC System and, therefore, are not included in Part II of this NTSP:

II.A. Billet Requirements

- II.A.1.b. Billets Required for Operational and Fleet Support Activities
- II.A.1.c. Total Billets Required for Operational and Fleet Support Activities
- II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule
- II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities
- II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities
- II.A.3. Training Activities Instructor and Support Billet Requirements
- II.A.4. Chargeable Student Billet Requirements
- II.A.5. Annual Incremental and Cumulative Billets

II.B. Personnel Requirements

- II.B.1. Annual Training Input Requirements

Note 1: There are no billets dedicated solely to the operation or maintenance of the SATCC System. The personnel who operate the SATCC System are filling watch-station requirements. The same ETs that maintain the CATCC UHF communications equipment maintain the SATCC System. These operator and maintenance personnel would be required even if the SATCC System did not exist.

Note 2: The same FAA course that is being used for initial SATCC maintenance training will be used for follow-on maintenance training. Follow-on training will be accomplished by sending selected ETs that have Permanent Change of Station orders to CVs and CVNs, to the Rapid Deployable Voice Switch IIA course at the FAA Academy, Oklahoma City. Follow-on maintenance training will begin when the new SNEC has been approved.

II.A. BILLET REQUIREMENTS

SOURCE OF SCHEDULE: NAVSEA

DATE: February 2003

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
OPERATIONAL ACTIVITIES - USN							
CV 67 USS John F. Kennedy	03367	0	1	0	0	0	0
CVN 65 USS Enterprise	03365	1	0	0	0	0	0
CVN 69 USS Dwight D. Eisenhower	03369	1	0	0	0	0	0
CVN 71 USS Theodore Roosevelt	21247	1	0	0	0	0	0
CVN 73 USS George Washington	21412	0	1	0	0	0	0
CVN 75 USS Harry S. Truman	21853	1	0	0	0	0	0
CVN 76 USS Ronald Reagan	22178	0	1	0	0	0	0
CVN 77 USS George H.W. Bush	TBD	0	0	0	0	1	0
CV 63 USS Kitty Hawk	03363	1	0	0	0	0	0
CVN 68 USS Nimitz	03368	1	0	0	0	0	0
CVN 70 USS Carl Vinson	20993	1	0	0	0	0	0
CVN 72 USS Abraham Lincoln	21297	1	0	0	0	0	0
CVN 74 USS John C. Stennis	21847	1	0	0	0	0	0

Note: This schedule identifies the FY that the SATCC System is installed at that activity.

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the SATCC System and, therefore, are not included in Part III of this NTSP:

- III.A.1. Initial Training Requirements
- III.A.2. Follow-on Training
 - III.A.2.a. Existing Courses
 - III.A.2.b. Planned Courses
 - III.A.2.c. Unique Courses
- III.A.3. Existing Training Phased Out

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: Rapid Deployable Voice Switch IIA Training
COURSE DEVELOPER: FAA
COURSE INSTRUCTOR: FAA personnel
COURSE LENGTH: 10 days

ACTIVITY DESTINATIONS: CV 67 USS John F. Kennedy
 CVN 65 USS Enterprise
 CVN 69 USS Dwight D. Eisenhower
 CVN 71 USS Theodore Roosevelt
 CVN 73 USS George Washington
 CVN 75 USS Harry S. Truman
 CVN 76 USS Ronald Reagan
 CVN 77 USS George H.W. Bush
 CV 63 USS Kitty Hawk
 CVN 68 USS Nimitz
 CVN 70 USS Carl Vinson
 CVN 72 USS Abraham Lincoln
 CVN 74 USS John C. Stennis

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	STUDENTS ENL	CIV
FAA Academy, Oklahoma City, Oklahoma	As required		26 total	Input AOB Chargeable

Note: NAVSEA is funding two maintenance technicians at each activity receiving the SATCC System to attend RDVS maintenance training at the FAA Academy. Personnel who completed initial maintenance training are eligible to receive the new SNEC 14XX, AN/SSC-12 Communications System Maintenance Technician, when the new NEC is approved.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the SATCC System and, therefore, are not included in Part IV of this NTSP:

IV.A. Training Hardware

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

IV.A.2. Training Devices

IV.B.1. Training Services

IV.B.2. Curricula Materials and Training Aids

IV.B.3. Technical Manuals

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program



PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
DA	Conducted Analysis of MPT Requirements	May 97	Completed
DA	Began Initial Training	FY98	On-going
SPAWAR	Conducted OT	FY98	Completed
DA	Achieved IOC	FY98	Completed
TSA	Developed Initial NTSP	May 00	Completed
OPO	Convened NTSP Conference	Nov 00	Completed
TSA	Developed Revised Initial NTSP	Dec 00	Completed
DA	Achieved MSD	Jun 01	Completed
TSA	Developed Draft NTSP	Apr 03	Completed
DA	Achieve NSD	TBD	Pending
CNO	Approve New NEC	TBD	Pending
TSA	Begin Follow-On Training	TBD	Pending
DA	Complete SATCC System Installations	FY06	Pending



PART VI - DECISION ITEMS / ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
Approve New NEC for SATCC System Maintenance	N12 / NAVMAC		Pending
Determine Target NSD	DA		Pending
Establish Target Start Date for Follow-On Training	TSA		Pending



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