

DEPARTMENT OF THE NAVY
Office of the Chief of Naval Operations
Washington, DC 20350-2000

OPNAVINST 2015.1
OP-094
2 March 1992

OPNAV INSTRUCTION 2015.1

From: Chief of Naval Operations
To: All Ships and Stations (less Marine Corps field addressees not having Navy personnel attached)

Subj: VIDEO TELECONFERENCING (VTC) ACTIVITIES, SYSTEMS AND NETWORKS

Ref: (a) SECNAVINST 5230.9A (NOTAL)
(b) SECNAVINST 5231.1B
(c) OPNAVINST 2800.2 (NOTAL)
(d) OPNAVINST 2800.3 (NOTAL)
(e) OPNAVINST 5290.1A (NOTAL)

Encl: (1) Definitions

1. **Purpose.** To provide policy and procedures for Navy video teleconferencing, establish the Video Teleconferencing Planning and Requirements Panel (VTPRP) and assigns responsibilities for VTC activities, systems and networks within Navy.

2. **Applicability and Scope**

a. This instruction applies throughout Navy. It also applies to defense contractors which provide support for VTC activities, systems and networks inasmuch as it prescribes interface criteria. It provides general policy and procedures, and assigns responsibilities for:

(1) VTC activities, which are organizations, or functions within a command or activity, which are established to provide video teleconferencing programs and services.

(2) VTC systems, which are the equipment and integral components (customer premises equipment and facilities) required to process VTC program and control data (less network interface devices).

(3) VTC networks, which are the interconnection of two or more sites for the

transmission and/or reception of video information. The interconnection can be provided by one or more transmission media to include copper wire, coaxial and/or fiber optic cable, satellite links and other long haul communications following Department of Defense (DOD) guidance.

b. Navy objective for VTC is to provide fully interoperable electronic capabilities at all sites to support command and control (C2) as well as improve productivity and efficiency in the successful accomplishment of Navy programs and goals.

c. For the purpose of this instruction, VTC includes all secure and non-secure video conferencing (including compressed or reduced rate video, and wideband video) with audio, and graphics conferencing with audio. It also includes teleconferencing applications known variously as tele-training, distance learning, tele-education, tele-seminars, electronic classrooms, etc. It excludes voice, data, telephone and computer conferencing which do not have a visual component.

3. **Policy.** It is Navy policy that:

a. All new VTC activities, systems, and networks must be approved by Chief of Naval Operations (CNO) (OP-094).

b. To assure interoperability and economy, all new and renewing acquisitions of Warner-exempt long haul connectivity for any form of video teleconferencing will normally be satisfied by a DOD common user system (e.g., the Defense Commercial Telecommunications Network (DCTN)).

c. Navy will use FTS 2000 for a non-Warner exempt long haul telecommunications requirements (unless an exemption from the use of FTS 2000 has been received from Government Service Agency (GSA)).

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d. CNO (OP-094) will provide all interface with Defense Information Systems Agency (DISA) for resolution of telecommunications support requirements.

e. VTC activities, systems and networks will provide interoperable capabilities to satisfy valid user operational requirements while maintaining access control and information protection in compliance with applicable Federal laws and regulations.

f. Local teleconferencing networks, satisfying local requirements and not requiring off base communications, will be designed and installed following the security and interface policy and standards of this instruction to facilitate future inclusion in, or connection to, the common user system. Local area VTC systems will be forwarded for inclusion in the Defense Communication System (DCS) VTC database which is maintained by the Director, DISA.

g. Local VTC activities, not requiring interface with any network, may implement a unique network system only after review by the VTPRP and only after approval by CNO (OP-094).

h. VTC activities will:

(1) Be authorized and managed under this instruction and reference (b). Permanent VTC activities, less desk top and individual workstations, will be authorized and centrally managed as Visual Information (VI) activities. Exclusions for visual information activities, set forth in reference (a), do not apply to video teleconferencing.

(2) To maximum extent possible, be consolidated and centrally managed with existing activities.

(3) Be operated in the most cost-effective manner, and support all DOD Components. The most cost effective, legal

combination of in-house and contractual arrangements for establishing and operating VTC activities and systems functions will be used.

(4) To the maximum extent possible, be designed and engineered for multiple purposes and common use. Dedicated VTC activities will be established only when they are shown to be cost effective and operationally necessary, and only when approved by CNO (OP-094).

(5) Be defined as commercial activities as provided for in DoD Directive 4100.15 of 10 March 1989 (NOTAL) and DOD Instruction 4100.33 of September 1985 (NOTAL) implemented by SECNAVINST 4860.44F.

(6) Use equipment which meets prescribed international, national, federal and DOD standards to ensure flexibility, interoperability, safety and reliability.

i. Existing equipment maintenance resources and capabilities will be used to the maximum extent possible.

j. Major commands will plan, program, and budget for their VTC activities, systems, and network requirements and their use of other DOD systems and networks.

k. VTC activities, system and network plans, approval documentation and contracts will identify and include appropriate operational security (OPSEC), communications security (COMSEC), computer security (COMPUSEC), compromising emissions (TEMPEST) and other protection requirements. Control links must also be protected when appropriate.

l. Navy representation on the DOD Teleconferencing Steering Committee will be provided by CNO (OP-094).

m. Non-DOD users may participate in Navy teleconferences when it is in the best interest of the Navy as determined by the sponsoring Navy command, when security requirements are met and when the other provisions of this directive are met. Such participation shall follow JCS

MOP 8 (NOTAL) and DOD Instruction 7230.7 of 29 January 1985 (NOTAL). Users not part of the Federal Government (e.g., contractors, North Atlantic Treaty Organization (NATO) and other Allies) shall participate in the Navy teleconferencing networks only through sponsorship of a Navy command.

n. A data base of permanent VTC activities, systems, and networks, less desk top individual workstations, will be established and maintained within the Defense Automated Visual Information System (DAVIS) following DOD Directive 5040.2 of 7 December 1987 (enclosed in SECNAVINST 5290.1B (NOTAL)).

o. VTC activities and systems using information resources management (IRM) resources will be managed following DOD Directive 7740.1 of 20 June 1983 (NOTAL) implemented by reference (b).

4. Responsibilities

a. CNO (OP-094) will:

(1) Act as overall manager of the Navy VTC Program.

(2) Maintain liaison with Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD(C3I)), Director, DISA and CNO (OP-09BG) to ensure telecommunications requirements standards for video, data and voice for VTC systems and networks within Navy are met.

(3) Provide policy and guidance for employing telecommunications life cycle management for video, data, voice and Information Resource Management (IRM) components used in VTC.

(4) Issue approved video, data and voice telecommunications standards.

(5) Review new VTC activities, systems and network technologies and protocols for potential Navy application.

(6) Assist in development of security features in video, data and voice telecommunications.

(7) Assist separate users in their security feature requirements.

(8) Serve as the proponent for video, data, voice and IRM standards for VTC systems and networks.

(9) Provide cost information for VTC service to commands and activities to assist them in their Program Objective Memorandum (POM) development and budget Planning.

(10) Consult with, and submit telecommunications operational needs to, the Director, DISA, for system engineering and cost analysis.

(11) Interface with DISA on Navy VTC telecommunications requirements as required.

(12) Assign appropriate Navy representation to working groups as directed to represent telecommunications functional areas.

(13) Chair the VTPRP.

(14) Review VTC communications under this instruction, and to the maximum extent possible, ensure consolidation and central management of communications and compliance with DOD directives.

b. CNO (OP-09B) will:

(1) Maintain liaison with Assistant Secretary of Defense for Public Affairs (ASD(PA)) and CNO (OP-094) to ensure Visual Information (VI) requirements for VTC activities and systems within Navy are met.

(2) Provide policy and guidance for employing VI resources, and for VI system life cycle management for VTC activities and systems.

(3) Serve as the proponent for VI activity, facility and equipment standards including conference room design parameters and presentation products for VTC sites.

(4) Coordinate VI standards with ASD(PA), CNO (OP-094) and Director, DISA.

(5) Coordinate and issue standard VI operating procedures for VTC sites.

(6) Ensure customer premise VI equipment suitability and interoperability for VTC sites.

(7) Provide management oversight for VI related to VTC activities.

(8) Assign appropriate Navy representation, in consultation with CNO (OP-094), to Working Groups to represent VI functional areas.

(9) Provide a representative to the VTPRP.

(10) Review VI aspects under this instruction in accordance with reference (e) and make recommendations to the VTPRP.

c. The Commander, Space and Naval Warfare Systems Command will:

(1) Promote the interoperability of VTC architecture with warfare and command and control architectures.

(2) Provide a representative to the the VTPRP.

(3) Provide technical guidance in Information Security (INFOSEC) matters.

(4) Certify VTC installations as complying with all INFOSEC and TEMPEST security requirements.

(5) Provide guidance to VTC site managers for completion of TEMPEST counter-measures evaluation and submission of a

TEMPEST Vulnerability Assessment Request (TVAR) per OPNAVINST C5510.93E (NOTAL).

e. The Commander, Naval Computer and Telecommunications Command will:

(1) Process requirements for telecommunications to support VTC activities under reference (c) for VTC activities systems and networks.

(2) Provide a representative to the VTPRP.

(3) Incorporate VTC in the Navy data communication architecture established by reference (d).

(4) Provide support to, and coordinate with, the ASD(PA) to establish and maintain a data base of permanent VTC activities and facilities (less desktop and individual workstations) within the DAVIS.

(5) Develop and maintain appropriate data for all permanent Navy VTC activities, less desk top and individual work stations.

f. Navy commands and activities will each:

(1) Submit all requests for VTC activities, systems or networks to OP-094 for approval (information copy to COMNAVCOM-TELCOM (code N622)). Supporting documentation and rationale, as a minimum, should include:

(a) Activity position of applicability of Warner Exemption.

(b) Requirements to interconnect with other VTC facilities and what system they are using, e.g. DCTN.

(c) Required capabilities for the facility. Suggested items to be considered are data rate, voice, data, and high resolution graphics.

(d) Requirements for secure conferencing. State level of security required (e.g., secret) and type encryption devices to be used. Also state the requirement for point to multi-point or multi-point to multi-point.

(e) Requirements for integration into other VTC networks.

(f) Telecommunications requirements; e.g., T-1.

(g) Accessibility to other VTC sites in the area for shared use considerations. Also, provide other activities/commands that would share the requested facility.

(h) Cost summary. Provide recurring and non-recurring costs for site survey/preparation, telecommunications costs, connection fees, facility operations, lease or purchase costs for equipment.

(i) Cryptographic considerations. If the request is for a site with secure capability, the following information: equipment required (nomenclature and quantity), what the equipment will be used for, when the equipment is required, who will have access to the equipment, a request for the appropriate keying material (if required), the account number of the CMS account to which the equipment and key is to be issued, and a point of contact for cryptographic related questions.

(2) Plan, program, and budget (fund) the procurement and operation of VTC activities, systems and network requirements. Ensure investigation of use of other DOD activities, systems and networks in order to eliminate duplication and unnecessary proliferation.

(3) Consider the most cost effective manner and combination of in-house and contractual arrangement for establishing, evaluating, operating and maintaining VTC activities, systems and networks functions.

(4) Ensure that the visual and oral conferencing content is in good taste and that security, copyright and privacy directives are not violated.

(5) Ensure that common use, flexible, multipurpose and interoperable activities, systems facilities and equipment are used and shared to the maximum extent possible.

(6) Maintain and operate as a VI activity, either contracted or in-house, VTC activities established for more than 90 days.

(7) Develop standard operating procedures for VTC activities, systems and community of interest (COI) networks.

(8) Provide life cycle management for their VTC activities and systems to include needs analysis, economic analysis approval documentation, concept of operation to include local area network (LAN) standards, design, development, acquisition of resources, installation, operation and maintenance of customer premise equipment.

(9) Provide operation and maintenance of LAN facilities in compliance with applicable technical standards and specifications.

(10) Provide maintenance of local area and COI VTC networks.

(11) Nominate a Contracting Officer's Technical Representative to manage all aspects of activity implementation when using the DCS to acquire facilities.

(12) Sponsor DOD Contractor and other non DOD user access to the DCS as applicable.

(13) Be responsible for security architecture and operation of their VTC activities, control links and customer premise equipment including TEMPEST certification, personnel security, INFOSEC, Physical Security, OPSEC and other applicable protection requirements, in accordance with OPNAVINST 5510.1 and CSP-1A.

(14) To the maximum extent possible, design and engineer VTC activities for multiple purposes and for common use.

(15) Use equipment which meets prescribed international, national, Federal and DOD standards to ensure flexibility, interoperability, safety and reliability.

(16) Use existing equipment maintenance resources and capabilities to the maximum extent possible.

(17) Provide long range VTC planning information to OP-094 as requested.

(18) Ensure VTC COI network managers coordinate with other VTC network managers.

(19) Comply with applicable Federal law and regulation.

(20) Maintain data to calculate facility utilization. Utilization will be based on a 40 hour week. Maintain data on nonavailability due to maintenance. Provide this data to OP-094 monthly.

(21) Maintain data on facility use. Data is to include using activity, purpose of conference (e.g. command and control), logistics, training etc.

5. Navy Video Teleconferencing Planning and Requirements Panel (NVTPRP)

a. The VTPRP is authorized by this instruction and is chartered by the Director, Space and Electronic Warfare (OP-094). The VTPRP is chaired by an OP-094 representative. It consists of representatives from the Space and Naval Warfare Systems Command, Naval Computer and Telecommunications Command, CNO (OP-09BG), Naval Electronic Systems Security Engineering Center, and the major communities of interest (NAVAIR, NAVSEA, NAVSUP, and SPAWAR). The VTPRP will review and recommend approval/disapproval on requests for VTC service to CNO (OP-094).

b. The VTPRP will meet at the direction of CNO (OP-094) or his designated representative. Requests for VTC activities of limited scope, or consistent with previous decisions or approved strategies, do not require meeting of the VTPRP for approval. Such requests can be approved by CNO (OP-094) based on recommendation of his staff.

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02 MAR 1992

DEFINITIONS

1. Asynchronous teleconferencing. Interactive group communication which allows individuals to communicate as a group when all are not present simultaneously (e. g. computer conferencing).
2. Asymmetrical teleconferencing. A form of teleconferencing where some sites have more capabilities than others.
3. Audio. The voice portion of a communications link.
4. Audiographics. Graphics, text and diagrams shared between sites in a teleconference and transmitted over narrowband or telephone channels. Includes such devices as facsimile, telewriters, and film projectors.
5. Aural. Information perceived through the ear.
6. Automation. The technique, method or system of operating or controlling a mechanical or productive process by electronic devices thereby reducing human intervention to a minimum.
7. Bridge. An electronic device which mixes the signals from three or more locations for audiographic teleconferencing.
8. C-band satellite transmission. Transmission from communications satellites operating in the 4-6 GHz portion of the electromagnetic spectrum.
9. Carrier. A provider of transmission capabilities available to the general public (sometime referred to as a common carrier or regulated carrier) and regulated by the Federal Communications Commission (FCC).
10. CODEC. An electronic device which converts analog signals to digital form, and vice versa. Codec stands for Coder/Decoder, and is usually made up of a central processing unit and memory.
11. Common Use. Services, materials or facilities provided by a DoD agency, or a military department, on a common basis for two or more DoD clients.
12. Communication. A method or means of conveying information of any kind from one person or place to another.

Enclosure (1)

0 2 MAR 1992

13. Community of Interest (COI). An organization, group of organizations or parts of organizations utilizing any system in the pursuit of common interest or objectives.
14. Compression. The action taken by a video codec in reducing the data rate required for the transmission of television signals between sites.
15. Conferencing. Meetings for the purpose of presenting and exchanging information, comparing views, learning, planning and decision making. Conferences can be held in one location, or can be conducted simultaneously at multiple locations, linked together by communications systems. Conferencing includes the design and engineering of conferencing systems and communications services, development of presentation media and the development and promulgation of policy, procedures and standards for the operation of conferencing facilities, systems and networks.
16. Conferencing Network Manager. The network controller or station manager responsible for scheduling, switching and procedures for one or more COIs or a prescribed network.
17. Data Encryption Standard (DES). A national standard used in the United States for the encryption of information digitally transmitted as set by the National Bureau of Standards (NBS).
18. Duplex Audio. An audio conferencing system which allows all sites to be heard simultaneously.
19. Echo. In telephony a reflection of energy transmitted over a network.
20. Electronic Conferencing. A fully integrated system employing audio, video, computer generated text and graphics and document copying capabilities located in presentation facilities which can be linked together by telecommunications networks.
21. Facsimile (FAX). A device which electronically transmits information, usually from a piece of paper.
22. Footprint. The geographical region on the earth which can easily receive and interpret a signal broadcast from a satellite.
23. Frame. A complete video image consisting of two fields. Each frame is made up of 525 scan lines, half of which are allocated to each field. For full motion video, frames are transmitted at the rate of 30 per second.

0 2 MAR 1992

24. Freeze Frame/Slow Scan. Non-compressed video (with interactive audio) used primarily for transmission of graphic material, photographic images and stationary objects where ability to track motion is not essential. Transmission of a image generally takes from a fraction of a second to 60 seconds depending upon available communication bandwidth.
25. Full Motion. Video (with interactive audio) used where the highest quality of resolution and ability to track the motion of quickly moving objects and people without distortion is required. Generally this is the level of broadcast quality television.
26. Individual workstation. A keyboard device with a Cathode Ray Tube (CRT) and local computer power allowing an individual to perform some computational work and data base access from the workstation.
27. Information Resource Management (IRM). The planning, budgeting, organizing, direction, training, and control associated with creation, collection, processing, transmission, dissemination, use, storage, and disposition of information, both automated and nonautomated.
28. "Last mile" services. Transmission services which line a customer's premises with a common carrier's transmission node. Usually used to describe land line or microwave links tying a customer's premises to a broadband or high data rate transmission system such as a satellite uplink.
29. Local Area Network (LAN). A nonpublic telecommunications system, within a specified geographical area, designed to allow a number of independent devices to communicate with each other over a common transmissions topology.
30. Long Haul Communications. Communications that permit users to convey information on a world-wide basis. Compared to tactical communications, long haul communications are generally characterized by higher levels of users, more stringent performance requirements, longer distance between users, higher volume traffic and density, and fixed or recoverable assets.
31. Multipoint. A communications system which allows three or more sites to both transmit and receive signals (e.g. conference call).

0 2 MAR 1992

32. National Television Standard. The North American 525-line standard for color television systems.
33. Near Full Motion. Compressed Video (with interactive audio) used where the possibility of noticeable motion distortion due to normal body movements and/or video camera scanning occurs. The acceptability of the distortion is a subjective judgement and/or economic decision.
34. Networking. The tying together of multiple sites for the reception and possible transmission of information. Networks can be composed for various transmission media, including copper wire, terrestrial microwave, coaxial cable, communications satellites, etc.
35. Network Manager. Individual assigned responsibilities for resource management of video teleconferencing facilities and the scheduling of events within or among communities of interest (COI).
36. Permanent Teleconferencing. A capability established for more than 90 days which satisfies a continuing requirement.
37. Point-to-multipoint. A conference configuration which allows only two sites to communicate with one another.
38. Proponent. An advocate or responsible agent for establishing and issuing policy, standards, and procedures for a function.
39. Teleconferencing. The use of communication systems by groups of three or more, at two or more locations, for the purpose of conferencing with one another; or, two-way communication between two or more groups, or three or more individuals, remote from each other using a telecommunications medium; or interactive group communications through an electronic medium.
40. Telecommunications. Any transmission, emission, or reception of signs., signals, writing images, sounds or information of any nature by fiber optic cable, or by wire, coaxial cable, microwave, satellite, or other electromagnetic systems.
41. Temporary Teleconferencing. A capability established for less than 90 days, normally to satisfy a one time requirement. It is usually commercially provided.

02 MAR 1992

42. User. The unit or organization that requires the video teleconferencing program or conference.

43. Video Compression. A signal coding technique used to compress the bandwidth required for the transmission of video images by reducing, in a codec, redundant information within or between video frames; also called bandwidth compression, data compression, or bit rate reduction.

44. Video Teleconferencing. Two-way electronic voice and video communication between two or more locations; may be fully interactive voice and video or two-way voice and one way video; includes full-motion video, compressed video and sometime freeze frame video images.

45. Visual Information. Use of one or more the various visual media with or without sound. VI includes still photography, motion picture photography, video recording with or without sound, graphic arts, visual aids, models, display, visual presentation, and the support processes.

46. Workstation. A location at which an individual works; generally used to denote electronic, usually computer-linked devices which and individual uses in the course of performing work in an automated office setting.