DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO
NAVSEAINST 9405.1A
Ser 53/091
3 Jan 02

NAVSEA INSTRUCTION 9405.1A

From: Commander, Naval Sea Systems Command

Subj: NUMBERING IDENTIFICATION SYSTEM FOR SURFACE SHIP ANTENNAS

1. Purpose. To establish a standard antenna numbering system that will facilitate identification of surface ship antennas.

2. Cancellation. This instruction cancels and supersedes NAVSEAINST 9405.1 of 6 January 1983.

3. Background. This instruction employs a standard numbering method to identify individual antennas by designating type of antenna, function, and location within the ship. To ensure standardization and configuration control, this instruction is effected.

4. Discussion

a. The Naval Sea Systems Command (NAVSEA) uses a standard numbering system for identifying each antenna on the ship class antenna drawings. This method provides rapid identification as to antenna type, function, and location. Such standardization is important for continuity, order, and ease of identification when assistance is requested for installation guidance, and resolution of fleet antenna problems. When the numbering system is not standardized, installation and repair teams experience difficulty in correctly identifying antenna type and location when attempting to convey findings to NAVSEA or reporting results to the planning yard and shore repair facilities.

b. To avoid the inherent disorder of using several different kinds of numbering schemes, the NAVSEA standard numbering system will be adopted. It will provide guidance for numbering antennas for ships presently in the fleet, ships going through overhaul, and new construction ships. Where changes are required, the numbering procedures outlined in paragraph 6 of this instruction will be used, except as noted in paragraph 5.

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c. The Navy Planning Yards have been designated as the approval activity for the numbering of all antennas. The addition, deletion or revision of antenna numbers via SHIPALT/ORDALT/AIT or other government-funded action shall be submitted to the appropriate planning yard for approval.

d. Cognizance for NAVSEAINST 9405.1A resides with SEA 53H3. However, the technical point of contact is NAVSEA Dahlgren, Code J53.

5. General Guidance for Numbering Systems

a. For in-service surface ships, the present numbering system will remain in effect. When an additional antenna is added to these ships, the next number in the numbering sequence will be used vice renumbering the existing antennas.

b. In-service surface ships undergoing RCOH (Refueling Complex Overhaul) or PIA (Phased Incremental Availability)/DPIA (Drydock PIA)/SRA (Selected Restricted Availability)/DSRA (Drydock SRA) shall be updated in accordance with the numbering procedures outlined in paragraph 6 of this instruction.

c. For new construction ships, this instruction is applicable only to contracts awarded following the effective date of this instruction. This instruction shall be invoked as part of the shipbuilding specifications.

6. Action. In accordance with NAVSEA design procedures, planning yards and naval supervising activities, including AIT coordinators, will ensure that the following numbering system is used on all US Navy surface ship antenna plans in accordance with paragraph 5 above:

a. A hyphenated numbering system will be used; for example, 1-1, 3-5, 7-3, 11-1, etc. The first number shall be used to designate the antenna category in the following order:

(1) Communications receive only antennas, shall use numbers 1-1 through 1-n, where "n" is the next available whole number.

(2) Communications medium and high frequency (MF/HF) transceiver antennas shall use numbers 2-1 through 2-n, with the exception of the broadband antennas. (See paragraph 6b(1) of this instruction.)

(3) Communications very high through extremely high frequency (VHF/UHF/SHF/ EHF) transceiver antennas, including SATCOM transceivers (AN/WSC-3 and AN/WSC-6), shall use numbers 3-1 through 3-n.

(4) Navigation antennas (e.g., GPS, LORAN, NAVSAT, and TACAN) shall use numbers 4-1 through 4-n.

(5) Radar surveillance (air and surface search) antennas, including air traffic control and phased array radars and IFF antennas, shall use numbers 5-1 through 5-n.

(6) Electronic warfare (EW) antennas, including ESM, ECM and Combat DF (SSES), shall use numbers 6-1 through 6-n.

(7) Telemetry antennas (e.g., AN/ARR-84, AN/SSN-7) shall use numbers 7-1 through 7-n.

(8) Weapons control antennas (e.g., AN/SPG-60, AN/SPQ-9) shall use numbers 8-1 through 8-n.

(9) Meteorology antennas (e.g., AN/SMQ-11) shall use numbers 9-1 through 9-n.

(10) Miscellaneous sensors (e.g., TISS, AN/SAT-2 and TV entertainment antennas) shall use numbers 10-1 through 10-n.

(11) Own/Intra ship radio frequency (RF) antennas (e.g., HYDRA, Wireless LAN) shall use numbers 11-1 through 11-n.

(12) Multifunction arrays (e.g., Multifunction Electromagnetic Radiating System (MERS)) shall use numbers 12-1 through 12-n.

b. As a general rule, the second number shall be even (e.g., 1-2) for port and odd (e.g., 1-1) for starboard antennas. For centerline locations, the second number can be arbitrary. More specific procedures follow.

(1) HF broadband antennas will be numbered 2-1, 2-2, 2-3, etc., in order of increasing frequency range.

(2) When more than one antenna forms an antenna system (e. g., AS-2815/SSR-1, AS-3018/WSC-1), the second number will have a letter attached, beginning with the letter A (e.g., 1-6A, 1-6B, 1-6C and 1-6D).

(3) Two or more antenna elements connected together in a junction box, prior to below deck penetration (e.g., twin whip antennas), shall be labeled as a single antenna.

(4) Antennas on the main deck and below will be numbered first, forward to aft, starboard to port, from the deck to the waterline.

(5) The island/superstructure will be numbered second, followed by the mast. If more than one superstructure exists, the forward superstructure shall be numbered first, followed by the next superstructure aft, etc. The numbering shall be forward to aft and starboard to port.

(6) 11- series ship antennas shall be numbered forward to aft and starboard to port. Numbering shall start with the above deck antennas, followed by the hangar bay, and then the below deck antennas.

G. P. NANOS, JR.

Distribution:
(see next page)

Distribution:

SNDL	A1J1A	PEOTACAIR
	A1J1B	PEOASWASM
	A1J1C	PEOSTRKWPNSUAVN
	A1J1E	PEOSPACOMMSENS
	A1J1F	PEO SURFACE STRIKE
	A1J1I	DRPM AAA
	A1J1L	PEO THEATER SURFACE COMBATANTS
	A1J1M	PEOMUW
	A1J1N	PEOSUB
	A1J1O	DIRSSP
	A1J1P	PEO EXW
	A1J1Q	PEO CARRIERS
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	FKP	COMNAVSEASYSCOM Shore Activities (less FKP6B, FKP24, FKP3, FKP2, FKP23, FKP26 & FKP1E)
	C84	COMNAVSEASYSCOM Shore Based Detachments (less C84B, C84C, C84D, C84J & C84K)
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	FA8	FTSCLANT NORFOLK
	FB8	FTSCPAC SAN DIEGO
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