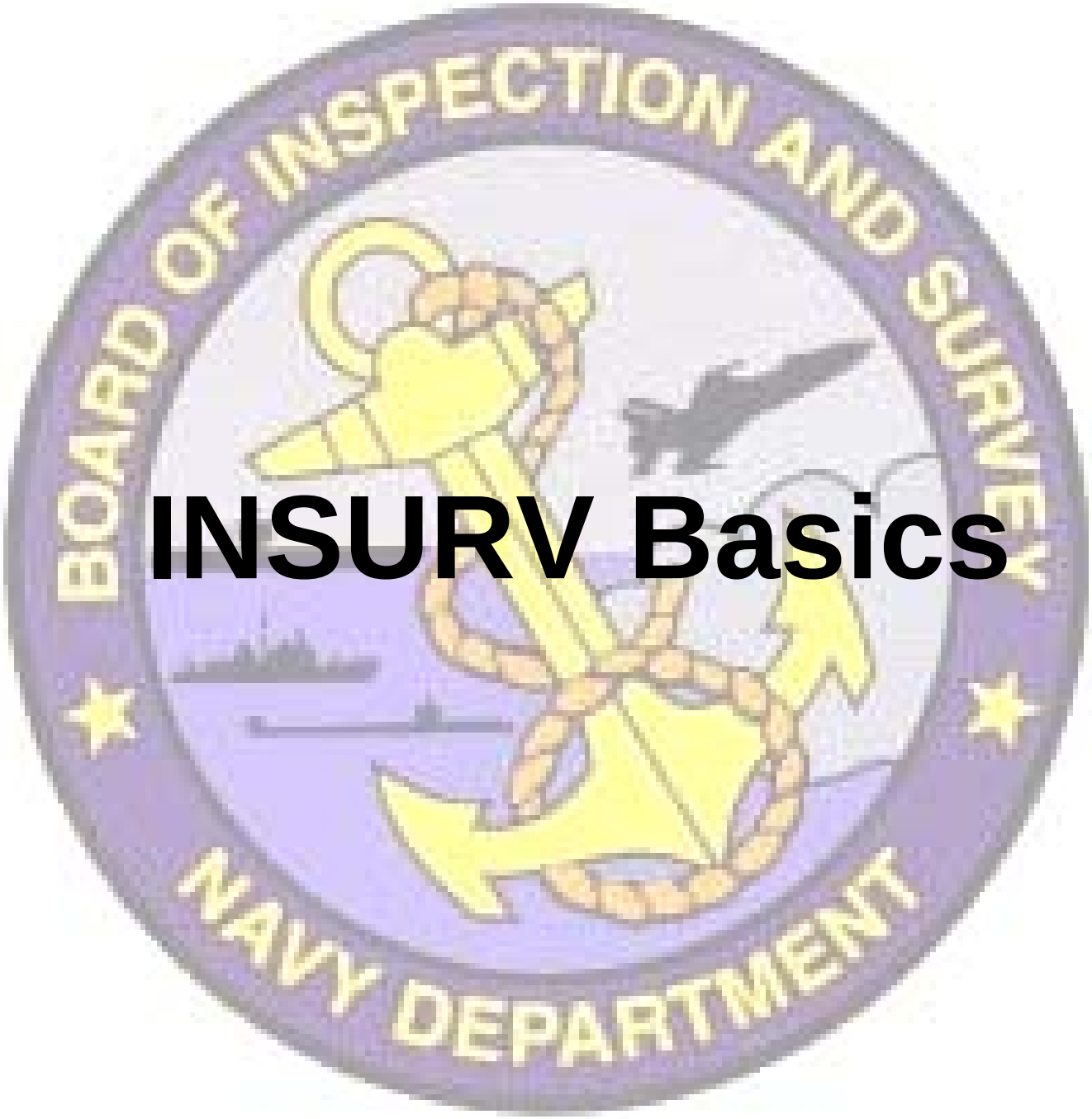
# INSURV C5I
# MI Pre- Brief

**Updated 24 September 2009**

# Agenda

- INSURV Basics
  - Mission & Goals
  - History
  - Organization
  - Deficiency Documentation & Scoring
  - Inspection Description & Phases
- C5I Material Inspection Events
- C5I Material Inspection Planning
  - General Preparation
  - DTE & Demo Prep
  - Common Issues & Deficiencies
- C5I References & Contacts
- Q & A




# INSURV Basics

# What is INSURV?

- Navy Board of Inspection & Survey
  - The Navy's independent assessors of the material condition of the fleet


# INSURV Mission

- ". . . periodically ascertains and reports on the material condition & performance capabilities or limitations of Navy ships; . . ."

**(OPNAVINST 5420.70F)**

# INSURV Goals

- To independently verify our ships are materially combat ready to take our Sailors into harm's way.
- To develop partnering among stakeholders to improve material readiness on a continuing basis.

# Legal Authority

- U.S. Code, Title 10 Section 7304. Examination by Board . . .
  - (a) The Secretary of the Navy shall designate Boards of Naval Officers to examine Naval vessels… Each vessel shall be examined at least once every three years, if practicable.
  - (b) A Board designated under subsection (a) shall submit to the Secretary in writing its recommendations as to which vessels, if any, among those it examined should be stricken from the Naval Vessel Register.

# INSURV History

- Established by CONGRESS (1868)
  - Ensure ships of the Navy are properly equipped for prompt, reliable, sustained mission readiness at sea.
- August 5, 1882 Congressional Legislation
  - Established the Board of Inspection & Survey under statutory authority
- INSURV has operated <u>continuously</u> under this authority since

# INSURV Organization

**President**

RDML R. M. Klein

**Deputy**

Mr. Gregory Sanford

**COS/ Sr. Inspector**

CAPT Snyder

**DCOS Aviation**

CAPT Croeber

**DCOS Trials**

CAPT Bonner

**DCOS Engineering**

CAPT Hoyle

**DCOS NEP**

CDR Ellenbecker

**DCOS Submarines**

CAPT Sykora

**DCOS C5I**

CDR Harder

**DCOS Supply/Habitability**

CAPT King

**DCOS Hull/DC**

CAPT Yusician

# INSURV C5I Organization

(Primary Inspectors)

**DCOS C5I – Senior C5I Inspector**

CDR Harder

**OP – Operations**

**NV – Navigation**

LCDR Kalinski (OP Deck Manager)

LCDR Voughs (NV Deck Manager)

LCDR Harris

LCDR Greathouse

**WP – Weapons**

**AS – Undersea Warfare**

**MN – Mine Warfare**

LT Crutchfield (WP Deck Manager)

LT Moreland (AS/ MN Deck Manager)

CDR Harder

**CC – Communications**

**IS – Information Systems**

LT Waggoner (CC Deck Manager)

LCDR Wright (IS Deck Manager)

LCDR Hernandez

# INSURV Inspectors

- Uniformed Inspectors (UI's)
  - Commissioned Officers (CWO to CAPT)
  - URL, RL, Staff Corps, LDO/CWO
  - Typical team size:
    - FFG/DDG/CG (15 UI's – 3 C5I) & CVN ( 50 UI's – 8 C5I)
- Technical Assistants (TA's)
  - Civil Servants &/or Contractors (Technicians/Engineers)
  - From Technical Commands (NAVSEA, NAVAIR, NSWC, RMC)
  - Typical Team Size:
    - FFG/DDG/CG (15 TA's – 12 C5I) & CVN (50 TA's – 25 C5I)

# Deficiency Documentation

- Method of Recording/ Reporting
  - AWN – Automated Workflow Network
  - INSURV will deliver a report of all findings (deficiencies) to Ship's Force, ISIC, and TYCOM
  - INSURV will transmit a CONFIDENTIAL report of all high-level deficiencies and scores for demos and functional areas inspected.
- Resolution of Deficiencies
  - INSURV not a participant
  - Ship's Maintenance Team will have FORAC

# Deficiency Definition

- From INSURVINST 4730.11J: “All deficiencies which require corrective action to bring the material condition of the ship to the required specification will be documented.”
  - Failure of equipment to meet performance or safety requirements;
  - Requirement for excessive maintenance resources;
  - Incomplete or UNSAT installations including documentation;
  - Incomplete or UNSAT tests, certifications, and inspections;
  - Violations of current environmental protection standards and program deficiencies;
  - Deficiencies associated with planned maintenance;
  - NAVOSH program deficiencies, safety hazards, and safety eqpt deficiencies

# Description of Deficiencies

- Priority 1 (or Part 1) Deficiency
  - A more important deficiency which:
    - Causes ship to be unseaworthy;
    - Reduces the ability to carry out assigned primary mission areas;
    - Substantially reduces the effectiveness of personnel or essential material;
    - Causes injury (or has potential) to personnel or damage vital material
- Priority 2 (or Part 2) Deficiency
  - Denotes a less important deficiency (not meeting defn of Part 1) that should be corrected to restore ship to required specifications
- Priority 3 (or Part 3) Deficiency
  - Administrative or design related
  - E.g. technical manual missing or not installed, recommended design changes for future SHIPALTs.

# Description of Deficiencies
(cont)

- Safety
  - A deficiency which poses a risk to equipment or personnel
  - Assigns a Risk Assessment Code (RAC)
  - Drives to Part 1 or Part 2 classification
  - Based on Probability vs. Severity of Mishap

# Safety Deficiencies

**Probability**

| **Severity** | Likely to occur immediately | Probably will occur in time | May occur in time | Unlikely to Occur |
|---|---|---|---|---|
| Catastrophic | **1** | **1** | **1** | **1** |
| Critical | **1** | **1** | **2** | **2** |
| Marginal | **1** | **2** | **2** | **2** |
| Negligible | **2** | **2** | **2** | **2** |

# INSURV Scoring

- Basic Scoring
  - Cleanliness, Stowage & Material
  - Preservation
    - Applies to Paint & Corrosion
    - Includes tanks, voids, bulkheads, decks, etc.
    - ASTM/CCIMS grading
- Demonstration Scoring
  - Partially based upon equipment deficiencies discovered pre/post-Demo
- Equipment & System Scoring

# Scoring Criteria (EOC)

| | |
|---|---|
| **SATISFACTORY (0.80 – 1.00)** | **1.0 – Fully Operable (SAT)**<br>**0.9 – Operable**<br>**0.8 – Minor Problems**<br>**0.7 – Minor Problems** |
| **DEGRADED (0.60 – 0.79)** | **0.6 – Limited Capability**<br>**0.5 – Limited Capability** |
| **UNSATISFACTORY (0.00 – 0.59)** | **0.4 – Major Problems**<br>**0.3 – Major Problems**<br>**0.2 – Inoperative**<br>**0.1 – Inoperative**<br>**0.0 – Totally Inoperative** |

# Inspection Types

- Material Inspections
  - Periodic for all Fleet units - ~ every 5 yrs!
  - Equipment demonstrated by crew
  - Assesses Material Readiness to conduct **SUSTAINED COMBAT OPERATIONS**
- Special Trials
  - Performed after major modifications (e.g. Cruiser Mod)
  - Performed at Custody transition (e.g. USN to MSC)
- Acceptance Trials
  - Demonstration of newly constructed ship's ability to meet Navy operational capabilities & contracted requirements
  - Conducted prior to commissioning
- Final Contract Trials
  - Conducted after the ship has operated for about 6 months, but prior to any deployment
  - Marks the end of the ship construction period

# The Inspection

- Focuses on material condition
  - FUNCTIONAL & PHYSICAL checks
  - Very thorough, stem-to-stern inspection
  - Snapshot in time – “as found” conditions
- Technical refs for all standards/demos
  - INSURV inspects to Technical Authority – directed technical standards using approved procedures.
- Equipment must perform to specs
  - C.F.R., COLREGS, SOLAS, Builder Specs, ABS, NSTMs, NAVDORM/SORM, JFMM, PMS
- Safety is paramount in all that we do
  - Nothing we do during a MI is worth injuring personnel or damaging equipment
- Three distinct phases
  - Preparation, Execution, & Post-Inspection

# Preparation Phase

- Develop SOE/ Agenda for inspection (INSURV common SOE, Ship's Force to modify and submit; INSURV will provide feedback)
- Practice Demos and Dry Run SOE
- Continue 3M Spot Checks, Zone Inspections, etc.
- Prepare logistics for INSURV arrival
  - Assign C5I Workspaces
  - Assign Escorts (if desired)
  - Reporting of deficiencies – "INSURV Central"
  - Present Deliverables per INSURVINST

# Execution Phase

- Underway
  - U/W demonstrations & checks
  - Receive Daily “How Goes It” status brief from INSURV
- Inport - Open & Inspect Phase
  - Driven by material records review and underway inspection/demo findings
  - Corrosion surveys, space inspections, etc.
  - INSURV will provide a list of spaces & equipment to be inspected

# Post-Inspection Phase

- Out-brief & Report Delivery
  - INSURV findings reported to ISIC, TYCOM and Ship
  - INSURV msg released to appropriate addressees
  - Port Engineer & Ship Maintenance Team addresses corrective action
    - Accepts/ Rejects
    - Scheduling for correction/ repair


# C5I Material Inspection Events

# MI Events (Notional)

- Execution Schedule
  - Day 1 & Early Day 2 (Underway Phase – Monday & Tuesday)
    - Homeport dependent
    - Depends on how well the SOE can be executed
  - Days 2 & 3 (Inport Phase – Tuesday & Wednesday)
    - Hot & Cold Eqpt Functional Checks
    - Material Inspections
    - Mast Inspection (including antenna inspections)
    - C5I Open & Inspects
  - Day 4 (Inport) – Open & Inspects
    - As required
  - Day 4 & 5 – Report Generation & Outbrief

**Actual SOE Will Vary by Ship Class & Configuration**

# MI C5I Events (Notional)

- Underway Phase Demos
  - Area Defense DTE (CG & DDG)
  - Self-Defense DTE
  - Gun Live Fire (FFG, CG, DDG)
  - USW DTE (FFG, CG, DDG)
  - Mine Hunting & Mine Sweeping (MCM)
  - Nixie Stream
    - Can be accomplished by ship's force pre-inspection
  - ULM-4 SLQ-32
    - Can be accomplished by ship's force pre-inspection

# MI C5I Events (Notional)

- Underway Phase
  - Operational demos of equipment
    - Navigation Equipment Including:  Autopilot, DFGMC, Gyro, Depth Finder
    - Systems with Radiation Restrictions Inport:  Air Radars, IFF, TACAN, Comms Systems
    - Hot checks on communications and information systems, radars, sensors and weapons
    - Functional and Physical checks of all spaces and systems as time permits

# SOE - INSURV Arrival and Underway

- What to Expect on Day 1
  - Provide C5I Inspectors copies of the Combat Systems and Operations Dept 8's to include applicable DFS/TSO/CASREPs and the following:
    - IAW INSURVINST 5221.1 Series
    - Hard copy of the CSMP by work center
    - Hard copy of CEPS message (comms)
  - C5I Inspectors will be conducting walkthroughs immediately following Inbriefs.
    - All preparations for U/W (IAW CSOSS, EOSS, PMS, NAVDORM as applicable) will be complete.
    - Electronic Cooling Water parameters checks prior to DTE (Conductivity, pressure, temperature, flows)
    - Verifying completion of weapons pre-fire checks
  - Checks will commence after sea detail and will not interfere with the safe navigation of the ship with Restricted Maneuvering Doctrine set.
    - NV Inspector will observe systems in operations during Sea Detail (Gyros & Repeaters, Depth Finder, Magnetic Compass, Helm Console, GPS, Speed Log); Will drop pierside GPS fix, surface radar fixes, gyro repeater lines of bearing fixes, depth mark compared to charted depth prior to underway
    - CC/IS checks will begin immediately upon getting underway
    - All inspectors will begin documentation reviews and space inspections

# SOE - INSURV Underway Day

- What to expect on Day 1 (continued).
  - The following equipment will NOT be taken offline to complete checks while underway:
    - Fathometer, Gyro systems, Dead Reckoning Systems, Underwater log, NAVSSI / IBS / VMS, Surface Radar, GPS
    - Safety Devices needed while eqpt is in operation
  - Limited functional equipment checks will be performed prior to the completion of underway or Detect to Engage demos.
    - Weapons pre-fire checks must be completed by ship's force prior to DTE and Gun Live Fire Demos
    - Some Air Search Radar checks will be completed underway, but not before the DTE generally
    - ECW parameters will be checked prior to DTEs

# SOE - INSURV Underway Day

- What to expect on Day 1 & 2 Underway.
  - Completion of U/W events and return to port.
    - Front-loaded Navigation Checks (to support shift of OP/NV inspector to OP systems inport
    - Post-fire weapons checks and post-DTE op checks of sensors and weapons
    - Comms checks including HF long haul & IMI testing
  - Commence upon return to port on Day 2 (Tuesday):
    - Aloft Mast Inspection w/ Antenna inspections
    - EPCC Dance, Dead Bus Tests, Combat Systems ABT's
    - Equipment Cold Checks (Material Inspections)
    - Equipment Radiate & Operational Checks (Functional Checks)
    - Nav Equipment not inspected underway because it was left online for safety of navigation

# SOE - INSURV Inport Days

- Inport Phase Days 2 – 4 (Tuesday – Thursday)
  - All events not accomplished underway
  - Mast Inspection w/ Antenna Inspections
  - Material Checks and Selected Operational Checks on C5I Eqpt
  - Space Inspections
  - Documentation Review
    - Smooth Log
    - CASREPs, DFS, TSO, 8 O’Clock Reports
    - Certifications

# SOE - INSURV Inport Days

- What to expect on Day 2, 3, and 4
  - Technical Assistants not underway will embark and commence inport equipment checks.
  - Uniformed Inspectors will take reports from Technical Assistants and generate the written HOWGOESIT
    - Command summary of major discrepancies found to date
    - List of checks/ systems left to complete
  - Uniformed Inspectors will complete preservation surveys and space inspections plus own system functional checks
  - TA’s will perform their checks as assigned by SOW

# SOE - INSURV Inport Days

- Open & Inspect Phase
  - INSURV will provide final list of systems or spaces it desires to O&I
  - List generally consists of selected C5I spaces and any equipment not inspected as part of earlier checks
- Report Generation & Outbrief

# SOE - INSURV Inport Days

- What to expect on Day 4 and 5 (if required).
  - Inspectors will debrief Technical Assistants
  - Inspectors will generate updated HOWGOESIT
  - INspectors will finalize EOC Scores and SI Brief Sheets
  - Inspectors will debrief ship's counterparts
    - EOC Scores MAY BE provided
    - Message worthy or score-driving deficiencies discussed including cleanliness, preservation, stowage, material and self-assessment scoring
    - Overall SHIP.OUT deficiency report delivered to ship
  - Inspectors debrief Senior Combat Systems Inspector and Senior Inspector
  - Senior C5I Inspector will debrief Dept Head(s)
  - Final INSURV report is generated and ship is debriefed by SI

# C5I Material Inspection Planning

# INSURV PREPS

- Start preparing at least 6 months ahead of time
  - Read and study INSURVINST 4730.1(series) & other applicable references (see end of PPT)
  - Establish contact with the Board once you have reviewed instructions and when you start to have questions
    - Email, TELCON, face-to-face pre-briefs are best
  - Ensure PMS is routinely and correctly done.
    - Manage your RAR.
    - QA! Spotcheck aggressively at all levels.
  - Conduct routine zone inspections and set a high standard.
    - Pursue an active discrepancy correction process.
    - It's about more than high dust, gear adrift and burnt out light bulbs
    - Remember electrical safety, DC fittings, condition of equipment in the space

# INSURV PREPS

- Start dedicated preparations at least 6 months ahead of time
  - Strictest Procedural Compliance w/ PMS, EOSS/CSOSS, Tech Manuals, etc.
  - Ensure systems meet specifications per PMS, NSTM, CSOSS, COLREGS, 33 C.F.R., NAVDORM, etc.
  - Accurately document deficiencies
    - Use CSMP, CASREPs, DFS/TSO, and 8 O'Clocks to manage material condition
    - Track and Manage to correction/ completion
  - Keep your ship clean & well-preserved!

**A Steady Strain, disciplined approach to maintenance is always preferable to Crisis Management for a successful INSURV – Don't wait until you are IN EXTREMIS to start critical self-assessment**

# INSURV PREPS

- Get the INSURV Pre-brief, Gouge, and Inspection Area Checklists at about I-4 months (Don’t wait to start preparing)!
  - Get the info down to the LPO/Work Center level.
  - Practice the checks using PMS.
  - Review PMS ‘R’ & ‘AP’ checks you don’t normally perform.
  - Follow our advice – learn from the mistakes of others (INSURV sees this stuff every week)
- Talk to the INSURV inspectors.
  - We will always try to answer questions – email is BEST way to reach us.
  - Review Instructions & Checklists and gouge first – ask specific questions
  - Correspond as frequently as needed – avoid expectation mismatches and surprises
    - If you have questions, ask them and get them answered
    - Develop a common understanding with INSURV

# INSURV PREPS

- Coordination among yourselves is key
  - Ship is responsible for scheduling services for DTE, comms checks, etc.
  - Coordinate across Departments & Divisions
    - OPS / CS / ENG / NV – Departments
      - If you operate it and someone else owns it (Eg. OS's consoles and QM's NAVSSI) make sure both owner and operator are aware of any issues and are working them
    - Coordinate & Deconflict SOE events
      - Eg. Schedule Mast Inspection w/ EPCC Dance
      - IMI on a dry deck – don't schedule after WDCM testing

# Preparing for the AD DTE

- Review INSURVINST4730.21(series)
- Generate or request AREPS data for the type of aircraft providing services
  - Use “Small Jet” for Lear; MIG-29 for F/A-18 etc.
  - Data provided by METOC email address in instruction
  - Provide data for 30Kft and 300 Ft altitudes for full 256 NM graphic for all sensors (SPS-48, SPS-49, SPQ-9B, SPY) installed
    - We will fly aircraft out to 90% predicted AREPS range for the primary air sensor
    - We will use this distance to determine comms long haul, IFF, and TACAN ranges
- Schedule Aircraft Services
  - Verify Opareas, request EW Pod (not required, but desired), ensure correct TACAN channels and other info in Pre-Ex
  - Schedule a back-up window in case of aircraft failure, weather, etc.

# Preparing for the AD DTE

- Brief watch team on flight profile in 3-D
  - Post freqs, channels, profile, IFF modes and codes, etc.
  - Altitude profile – 30K ft from max range until completion of missile engagements; 300 ft from 40 NM into mark on top for SD DTE
  - Radials established to ensure all sensors and weapons will engage target aircraft (manage your overlap zones and cutout zones)
  - Ensure TAO can and does drive the ship during DTE
    - Avoid other conflicting events that would prevent completion of the DTE (except safety of Navigation)
    - Manage ship position in the OPAREAS and aircraft restricted flight corridors
- Complete weapons pre-fire checks
  - Document deficiencies and report all failures to TAO, CSC, CSOOW, etc.
- Setup CDS & Weapons Systems for DTE
  - Set Doctrine and review it with INSURV before MI; review again onboard prior to DTE
  - Place system in correct mode of operation and align for system setups per the INSURVINST – test vs. tactical, sector holdback tool, FIS key, CIWS, etc.
  - Put important tactical displays in ASTABs and LSDs at front table
  - Put aircraft comms up in the speaker box nearest the ASTAC/AIC controlling the plane
  - Alert EW of what threat emitter (if pod is installed) that aircraft will squawk.
    - EW will report correlation with SLQ-32 threat indication to radar track corresponding to target aircraft during the DTE.

# Preparing for the AD DTE

- Rehearse, Rehearse, Rehearse
  - Don’t deviate from the profile and system setup per the INSURVINST
  - Review questions and your PLAN with INSURV prior to our walking onboard
    - Advanced look pre-briefs provide a chance for us to review your Doctrine, flight profile plan, and system setup
  - If you are not sure, ask us!

# Preparing for the SD DTE

- Review INSURVINST 4730.21(series)
- Generate or request AREPS data for the type of aircraft providing services
  - Use “Small Jet” for Lear; MIG-29 for F/A-18 etc.
  - Data provided by METOC email address in instruction
  - Provide data for 30Kft and 300 Ft altitudes for full 256 NM graphic for all sensors (SPS-48, SPS-49, SPQ-9B, SPY) installed
    - We will fly aircraft out to 90% predicted AREPS range for the primary air sensor
    - We will use this distance to determine comms long haul, IFF, and TACAN ranges
    - Once Longhaul is complete, control aircraft down to 300 ft altitude and 40NM from ship to commence SD DTE inbound run(s)
- Schedule Aircraft Services
  - Verify Opareas, request EW Pod (not required, but desired), ensure correct TACAN channels and other info in Pre-Ex
  - Schedule a back-up window in case of aircraft failure, weather, etc.

# Preparing for the SD DTE

- Brief watch team on flight profile in 3-D
  - Post freqs, channels, profile, IFF modes and codes, etc.
  - Altitude profile – 30K ft from max range until completion of long haul; 300 ft from 40 NM into mark on top for SD DTE
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  - Ensure TAO can and does drive the ship during DTE
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# Preparing for the SD DTE

- Rehearse, Rehearse, Rehearse
  - Don’t deviate from the profile and system setup per the INSURVINST
  - Review questions and your PLAN with INSURV prior to our walking onboard
    - Early look pre-briefs provide a chance for us to review your Doctrine, flight profile plan, and system setup
  - If you are not sure, ask us!

# Preparing for the Gunnery Live Fire Exercise

- Review the INSURVINST 4730.24(series)
- Satisfactorily complete pre-fires
  - Any deficiencies documented
  - Signed by CO
- Ensure correct load out of round by number and type IAW INSURVINST
- Establish OPAREA and standard range clearance

# Preparing for the USW DTE

- Manage your OPAREA and ship position within the oparea
- Determine range of the day and determine sonobuoy spacing
  - Have extra sonobuoys and EMATTS available
- Brief watch team
  - If you're not cheating, you're not trying hard enough!
  - Post EMATT run pattern, sonobuoy spacing & freqs
  - Pre-brief INSURV - - let us review your plan and provide you feedback
- Rehearse, Rehearse, Rehearse
  - USW is the Demo/ DTE most susceptible to going poorly because of training/tactics, causing major SOE Execution delays
  - We are here to assess MATERIAL CONDITION ONLY

# Preparing for the USW DTE

- Setup your CDS, Sonar, etc. in the correct mode
  - Don’t confuse TACTICAL – TEST – TRAINING when it comes time to perform
- Ensure HP AIR System and SVTT pre-checks are complete – have your flasks charged and ready to go!
- You must acquire with PASSIVE and ACTIVE hull-mounted sonar, on sonobuoys, and on the SQR-19 (if installed)
  - You determine the order --- manipulate it for success
  - Go Active to determine exact bearing, then try passive – You now know where to look!

# Preparing for the Mine Warfare Demos

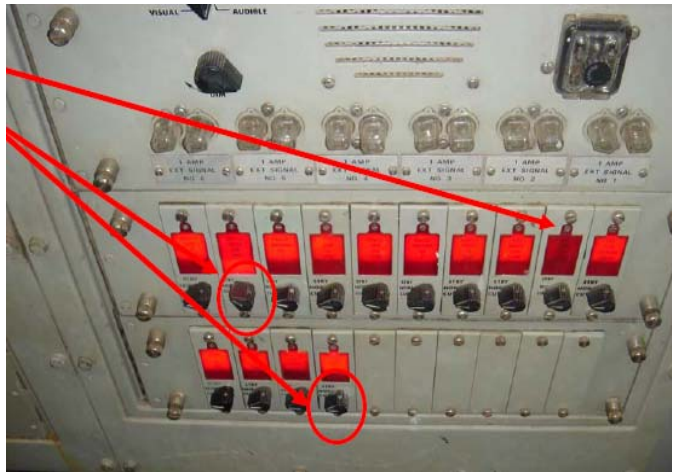
- Review the INSURVINST
- Schedule a support ship to deploy and retrieve the shape

# C5I Common Issues & Deficiencies

- Lack of PMS detailed compliance or PMS not being performed, installed
  - Poor work safety awareness
  - Poor procedural compliance
  - “Saving” maintenance for SRA, RAV…
- Lack of knowledge in Test Equipment usage or test equipment not on hand
  - Borrow Extras!!!
- Lack of Climber Safety Harnesses for aloft inspection
  - Borrow gear from other ships
- Lack of Khaki involvement in the maintenance process
  - QA, PMS Spotchecks, Space Inspections & follow-ups

# C5I Common Issues & Deficiencies

- Alarms found in cut-out
  - Not CO-approved
  - INOP Safety Devices
  - Not documented
- Gages not calibrated, out of periodicity, or wrong periodicity IAW CRL, PMS & Tech Manuals
  - Eg. Combat Systems cooling systems water conductivity not within specifications, poor valve maintenance, and leaks, missing placards, labels, etc.



# C5I Common Issues & Deficiencies

- Deficiency documentation UNSAT
  - Not documented, or improperly documented
  - CSMP not documented or insufficient detail provided
  - DFS, TSO, CASREPs, 8 O’Clock Reports out of date
  - Failure to comply with TSO, Standing Orders or instructions
  - Not aggressively managing repair and replacement efforts

# C5I Common Issues & Deficiencies

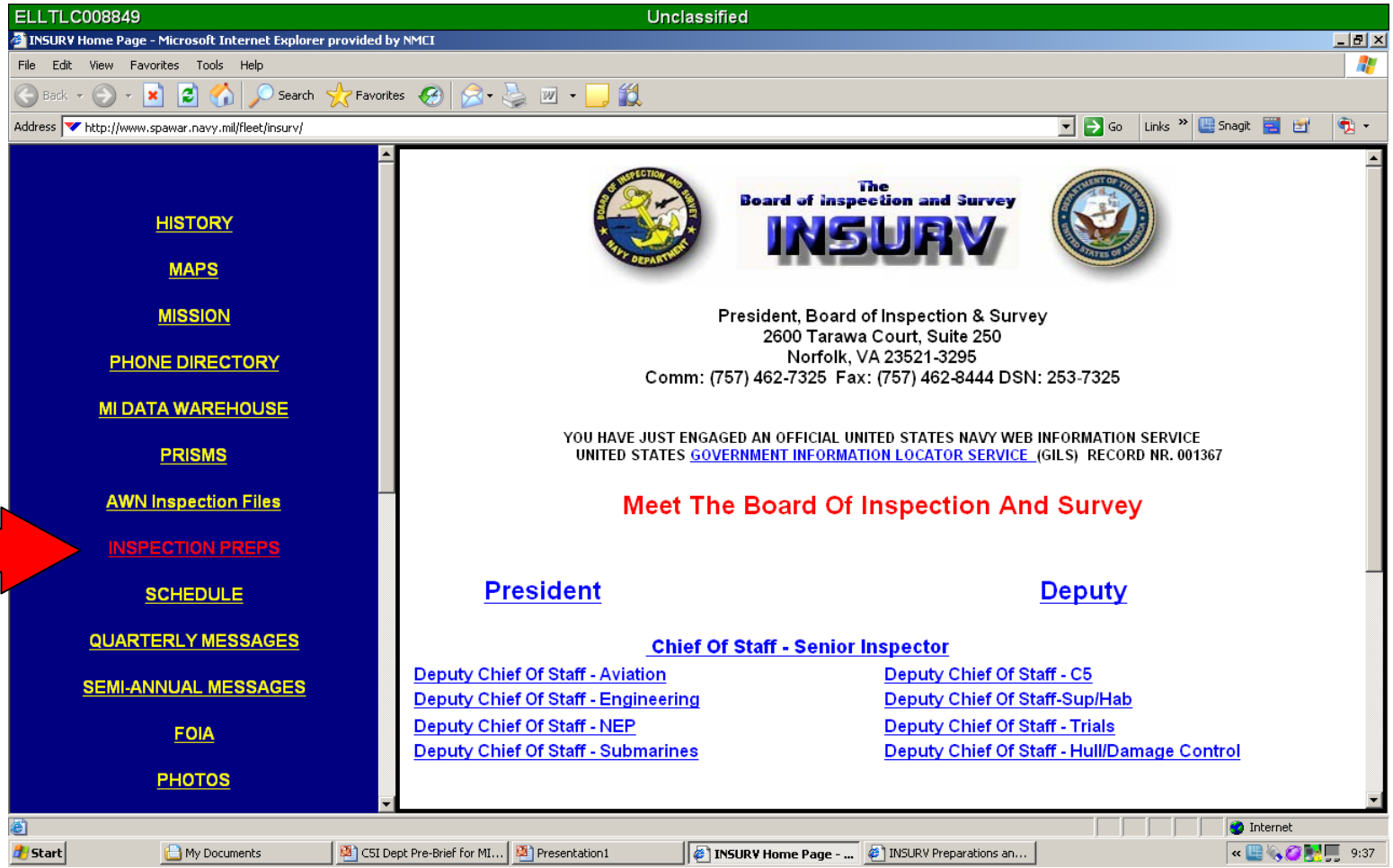
- Corrosion
  - Rust, paint & non-skid coating failure
  - Lack of Proper area preparation
  - Ignored in “hard to reach” areas
  - Painted over rust
  - Inadequate weather-proofing
  - Not well-documented
  - Worst Areas for C5I
    - MAST
    - Topside Spaces
    - Antennas – Comms, Radar, IFF
    - Electronic Cooling Skids & Eqpt Rooms
    - Weapons spaces – armories, magazines, RSLs
    - Eqpt Pedestals – radars, Nav gear, crew-served weapons


# C5I Material Inspection References & Contacts

# References

- OPNAVINST 4730.5P
  - Trials & Material Inspections Conducted by INSURV
- INSURVINST 4730.1 Series
  - Material Inspections of Surface Ships
- INSURVINST 4730.11 Series
  - Documentation of Deficiencies
- INSURVINST 4730.23 Series
  - Mine Warfare Demonstrations
- INSURVINST 4730.22 Series
  - USW Demonstration
- INSURVINST 4730.21
  - Air Warfare & Self-Defense Detect to Engage Demonstration
- INSURVINST 4730.24 Series
  - Gun Demonstration

# INSURV Website



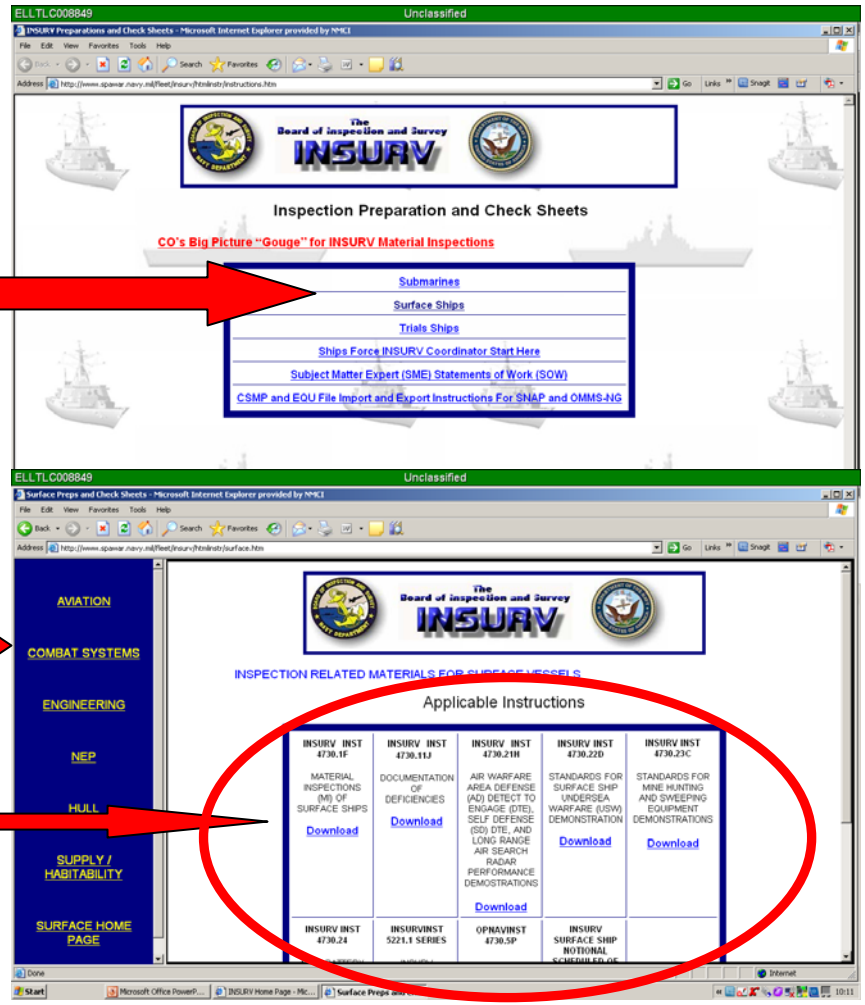

**http://www.spawar.navy/mil/fleet/insurv**

# INSURV Website

Select ‘Surface Ships’ Hyperlink

Select ‘Combat Systems’ Hyperlink

Select INSURVINST References you want to view or download




**http://www.spawar.navy/mil/fleet/insurv**

# INSURV Website

Placeholder - New Look C5I Weblinks

**C5I Link contains: Each Inspection Deck's Gouge, Checklist for Ships, SOWs & C5I Dept Pre-Brief**

# INSURV C5I POC's

- Email or Call your ASSIGNED inspector with specific questions
  - Don't ask, "What do I need to do for INSURV?"
  - Make sure you are already familiar with the instructions, website contents, etc.
  - Ask specific questions or ask for clarification
  - Discuss issues you know you have or major concern areas with us ahead of time
    - Eliminate expectation mismatches
  - We are happy to help answer detailed questions from any level of your chain of command from E3 to O6.
- Be prepared to wait up to 48 hours for a response
  - Travel and availability of inspectors is often limited due to OPTEMPO
- If you can't reach your ASSIGNED inspector, contact another qualified inspector in that area
- Work phones are seldom manned due to travel schedules – email and cell phone are best bets!
  - We are seldom in the office.

# INSURV C5I POC's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# Questions & Answers