



***N851***  
***NAVAL SPECIAL WARFARE***  
***BRANCH***

**Captain Evin Thompson**  
**Branch Head**

Unclassified



# N851 – Primary Responsibilities



- **Resource sponsor for:**
  - Naval Special Warfare (NSW) service common requirements. (FY11 ~\$22.5M)
  - Navy Riverine Force. (FY11 ~\$18.2M)
  
- **Senior NSW advocate/advisor on the staff of the CNO.**
  - NSW Urgent Operational Need (UON)/SOF - related Joint Urgent Operational Need (JUON) advocate.
  - Advisor in support of N81 analyses and studies that include or support NSW/SOF equities.
  
- **OPNAV coordinator/advocate for Navy programs that support/involve NSW/ExW. Examples include:**
  - Scan Eagle Unmanned Aircraft System (in support of NSW and USCENTCOM).
  - Small Tactical Unmanned Aircraft System (STUAS).
  - Special Operations Force (SOF) support attributes of future Navy ships.
  - Navy policy for Premeditated Personnel Parachuting (P3) operations.
  - “Naval Solution for Visit, Board, Search and Seizure (VBSS).”
  - Common Seaframe for Navy/SOF
  
- **Represent Commander, NSW Command, as directed, in the National Capital Region.**



# N851 - Top Programs



## ➤ **Naval Special Warfare (NSW)**

- Provide procurement and sustainment resources for **service common capabilities**, to include:
  - Small Arms & Weapons Mounts
  - Tactical Communications Equipment
  - Night Vision Equipment
  - Training Support Craft
  - Operational Stocks
  - Planning & Management Support Systems

## ➤ **Riverine Activities Program**

- Provide procurement resources for initial outfitting, capability improvements and phased replacement for Riverine Group ONE and component Riverine Squadrons ONE, TWO and THREE.
- Achieve Full Operational Capability (FOC) by FY 2010 (with exceptions).
- Support establishment of a "Fourth Riverine Squadron."

## ➤ **Unmanned Aircraft Systems (STUAS) for L-Class ships, NSW and NECC**

- Representing N85 equities (NSW, NECC and L-Class ships) in this N2N6 - resourced program.
- Expeditionary Forces require STUAS Tier II vice STUAS – Lite.

## ➤ **Procurement/sustainment of Scan Eagle Unmanned Aircraft Systems ISO SOF**

- Requested by NAVSPECWARCOM, via UONS, and USCENTCOM, via JUONS for OIF and OEF.
- Capabilities provided by the JUON employed under custody of NAVSPECWARCOM.
- N851 coordinates execution with NAVAIR program office, Task Force ISR, Naval Special Warfare Command, Special Operations Command Central and other involved/interested parties.



# Naval Special Warfare



## Capability Description

➤ **Naval Special Warfare (NSW) forces conduct special operations in support of Joint Force and Navy commanders. Examples include, but aren't limited to:**

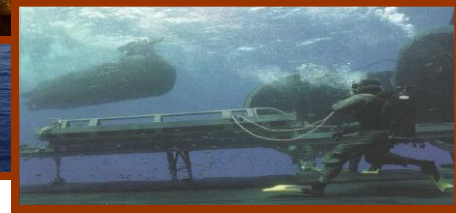
- *Direct Action*
- *Special Reconnaissance*
- *Foreign Internal Defense*
- *Counter-terrorist Operations*

➤ **NSW Forces have been deployed to OEF since 2001 and OIF since 2003.**

➤ **Navy is responsible for providing resources to support NSW service common capabilities/sustainment.**

➤ **Categorization: Navy - only program (SOCOM interest)**

- *N85 - Principal resource sponsor; responsible for (most) NSW service common procurements/sustainment (OMN, OPN, WPN). [N6F was responsible for resourcing NSW service common portable radios (OPN); resources now in N85.]*
- *N86 - Responsible for resourcing NSW service common Chemical, Biological, Radiological Decontamination Equipment (CBRDE) and Small Tactical Unmanned Aircraft System (STUAS) capabilities (OMN, OPN, APN).*



USSOCOM - Resource sponsor for all **Special Operations peculiar** capabilities/sustainment, capability improvements and all NSW ammunition.



# Riverine Activities



## Capability Description

- **Operational Riverine Force components (Riverine Squadrons) are organized, trained and equipped to conduct maritime security operations and theater security cooperation missions along inland waterways. Examples include, but aren't limited to:**
  - *Patrol*
  - *Interdiction/Visit, Board, Search, Seizure*
  - *Troop transport*
  - *Foreign Internal Defense*
- **N851 has been managing initial outfitting resourcing of the Riverine component of NECC since late FY05.**
- **Riverine Squadrons have been deployed to OIF since March 2007.**
- **Categorization: Navy - only program**
  - *N85 - Principal resource sponsor; responsible for procurement resources (OPN, WPN, PANMC, RD TEN)*
  - *N2N6 - Responsible for resourcing portable radios (OPN)*
  - *N43 - Responsible for resourcing readiness funding (OMN)*
  - *N86 - Responsible for resourcing CBRDE (OPN, OMN)*





# Riverine Force OIF Activities

<i>River/Lake Security Patrols</i>	<b>923</b>
<i>Quick Response Force missions</i>	<b>100</b>
<i>Riverine Convoy missions</i>	<b>689</b>
<i>Shoreline sweeps</i>	<b>354</b>
<i>Joint operations conducted</i>	<b>240</b>
<i>Iraq Security Force Patrols</i>	<b>245</b>
<i>Detainees screened</i>	<b>389</b>
<i>Boats impounded</i>	<b>76</b>
<i>Weapons caches found</i>	<b>142</b>
<i>Combined operations conducted</i>	<b>156</b>
<i>Unmanned aircraft hours flown</i>	<b>667</b>
<i>Aircraft control hours</i>	<b>268</b>
<i>Iraqi River Police trained</i>	<b>217</b>
<i>Partnership training (Mandays)</i>	<b>3501</b>
<i>Key Leader engagements</i>	<b>165</b>
<i>Allocations of micro grants (\$K)</i>	<b>111</b>

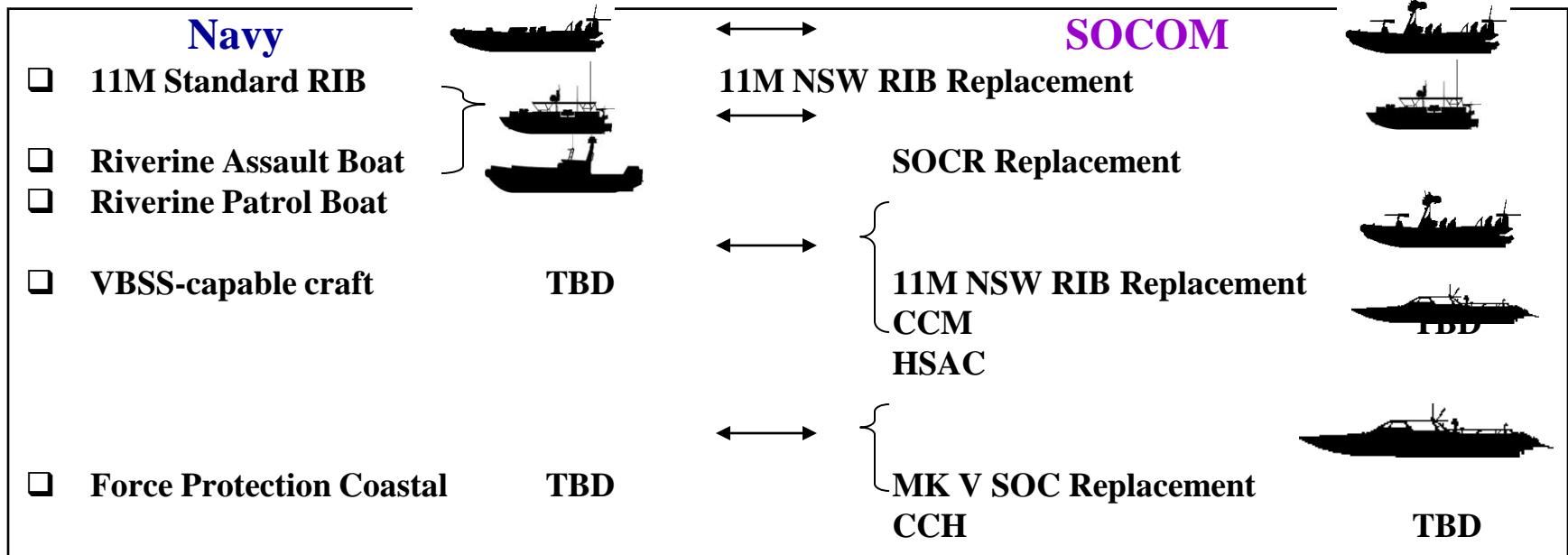


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# Future Navy - SOCOM Common Combatant Craft Possibilities



## Current Navy - SOCOM Combatant Craft Commonalities

- ✓ Navy's Riverine Assault Boat and SOCOM's SOCR (they are the same craft)
- ✓ Small arms, weapons mounts and ammunition
- ✓ Tactical communications equipment
- ✓ On-board sensors (Electro Optic/InfraRed systems)
- ✓ Individual visual augmentation systems
- ✓ Chemical-Bio protective/decontamination equipment
- ✓ (Tier I) Unmanned Aircraft System (Puma All Environment Capable Vehicle)

Key: RIB – Rigid Inflatable Boat      VBSS – Visit, Board, Search & Seizure      HSAC – High Speed Assault Craft  
 SOCR – Special Operations Craft Riverine      CCM – Combatant Craft Medium      SOC – Special Operations Craft



# What N851 Needs from Industry



- Common Combatant Craft
  - Versatility/Modularity
  - Speed
  - Seakeeping
- Modular Armor
  - People
  - Equipment





# What N851 Needs from Industry



- Lighter weight body armor
- Lighter weight modular/removable vehicle & boat armor
- Improved anti-corrosive coatings for weapons
- Batteries with higher power densities and lighter weight
- Tools to aid with concealment of people and equipment
- Portable translation devices and even better, ability to manage pools of vetted native speakers that can be tapped into
- (N2N6/CT Support) Data mining tools that can reach across the plethora of databases that can't talk to each other
- Heavy Fuel Engine for shipboard UAS ops



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# BACKUPS



# Expeditionary Basing

- LAND Basing
  - Expeditionary Camp
  - Force Protection
  - Civil Affairs
  - Medical
  - Expeditionary Logistics
- SEA Basing
  - High Speed Vessel
  - Landing Ship Dock (LSD)
  - Landing Platform Dock (LPD)
  - Littoral Combat Ship (LCS)
  - Utility Craft





# Combatant craft on ships is not new!



MLP



OSRV



16 Swedish RCBs landing in the LSD 41 class (USS TORTUGA) well deck

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# *Lessons Learned*

## *(Representative)*

- All sailors aren't prepared for 'riverine' duty.
- 'You don't know what you don't know.'
- All small craft have payload limitations.
- Need for a robust (non-organic) intelligence collection/ analysis capability.
- Sustained awareness of 'burn rate' of major equipment, based on training usage, environmental factors, etc.
- Timing of personnel assignment with training cycle/deployment rotations.
- Sufficient time to incorporate counter-insurgency/foreign internal defense training into pre-deployment cycle.

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# USN Riverine Craft



***Riverine Assault Boat (RAB)***

***Riverine Patrol Boat (RPB)***



***Riverine Command Boat (RCB)***

***Combat Rubber Raiding Craft  
(CRRC)***





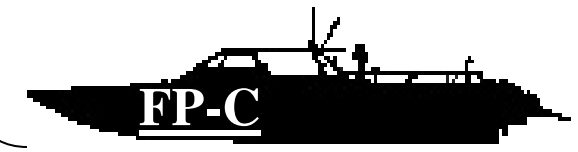
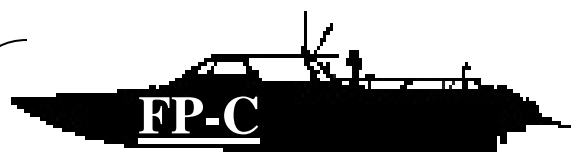
# Fourth (Composite) Riverine Squadron (Alternative)

**Composite  
RIVRON  
HQ**

**Offshore Patrol  
Division  
1 x RCB  
2 x FP-C**

**Support Division  
C2, VBSS, Medical,  
Maintenance, etc**

**Inshore Patrol  
Division  
4 x LCS compatible  
Patrol craft**



LOA: 15m  
(Actual)

LOA: 20m-22m  
(Notional)

LOA: 11m-12m  
(Notional)

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# Riverine Vehicles



***MK 25 MTVR W/ MAS ARMOR KIT***



***UPARMORED HMMWV***



***CAT I***



***CAT II***



***MRAP (Mine Resistant Ambush Protected)***



# Weapons



M4



M9



M500



M2HB



GAU-17



MK19



M240G



MK21



MK48

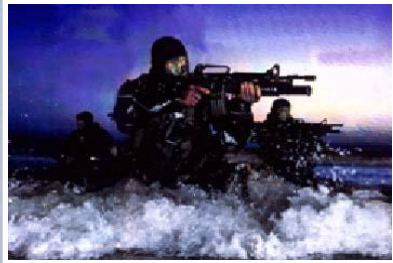
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# NAVAL SPECIAL WARFARE (N851)



## Service Common Capabilities

- Pre-positioned operational stocks
- Visual Augmentation Systems
- Training support craft
- Small-arms and weapons mounts
- Tactical Communications Equipment

## Irregular Warfare (IW)

- Developing Navy IW portfolio investment strategy
- Provide recommendations for Navy unique, risk-mitigating solutions to Joint IW efforts

## Future Capabilities

- Integrate into future Navy capabilities and concept development of unmanned systems
- Provide expertise in development of future Special Warfare service common items



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# NSW Scan Eagle UAS

**Mission:** Procured in response to NSW and Joint SOF Urgent Needs, the Scan Eagle UAS provides Full-motion Video (FMV) intelligence, surveillance, reconnaissance, and targeting support to tactical users.

➤ **Operational Employment:**

- 9 Navy-owned systems
  - 6 x Operational, 2 x training, 1 x Op Spare
- Hub & Spoke Operations (300 hrs/month)
  - Spoke (Forward Control Station) ~100km

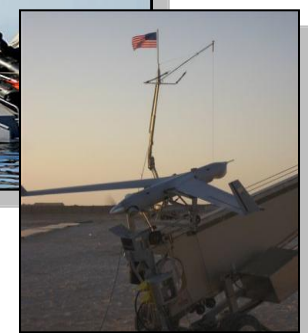
➤ **Equipment:**

- Scan Eagle UAS (12 air vehicles per site)
- Ground Control Stations, Launch/ Recovery, Pack-up & Maintenance kits, Ops/Maintenance Shelters

➤ **Operational Overview**

- **IOC:** Nov 08 (OIF), Aug 09 (OEF)
- **OIF (as of 30 Sep 09):**
  - Sorties: 346
  - Total Flight Hrs: 1847 hrs
- **OEF (as of 30 Sep 09)**
  - Sorties: 58
  - Total Flight Hrs: 450 hrs

➤ **Rapid Development Deployment (RDD) – Special Payload Efforts**



Performance		
Max Level Speed	70 knots	36 m/s
Cruise Speed	49 knots	25 m/s
Service Ceiling	16,400 ft	5000 m
Endurance	15 hours	15 hours

Dimensions		
Wing Span	10.2 ft	3.1 m
Fuselage Diameter	7.0 in	0.2 m
Length	3.9 ft	1.2 m

Scan Eagle UAS is an interim capability until fielding of STUAS Program of Record ~4Q FY13

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# Riverine Assault Boat (RAB)



Characteristics	
Hull Type	High-grade Aluminum Rigid
Length	33 ft
Beam	9 ft
Draft	2 ft
Crew	7
Passengers	-
Twin Diesels w/Water Jets	Yes
Top Speed: full load	30 knots - cruise 40 knots - sprint
Range	250 nm
Fuel Capacity	250 gallons
C-130 Transportability	No
Combat Load	20, 500 lbs.
Bow Door/Ramp	No
Weapons Foundations	Multiple



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# Riverine Patrol Boat (RPB)



Characteristics	
Hull Type	High-grade Aluminum Rigid
Length	39 ft
Beam	10 ft – 2 in
Draft	2 ft
Crew	5
Passengers	8
Twin Diesels w/Water Jets	Yes
Top Speed: full load	35 knots - cruise 38 knots - sprint
Range	275 nm
Fuel Capacity	300 gallons
C-130 Transportability	No
Combat Load	22, 800 lbs.
Bow Door/Ramp	Yes
Weapons Foundations	Multiple



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# Riverine Command Boat (RCB)



Characteristics	
Hull Type	High-grade Aluminum Rigid
Length	49 ft
Beam	12 ft – 5 in
Draft	3 ft
Crew	4
Passengers	26
Twin Diesels w/Water Jets	Yes
Top Speed: full load	40 knots - cruise 45 knots - sprint
Range	>320 nm
Fuel Capacity	300 gallons
C-130 Transportability	No
Combat Load	40,000 lbs.
Bow Door/Ramp	Yes
Weapons Foundations	Multiple



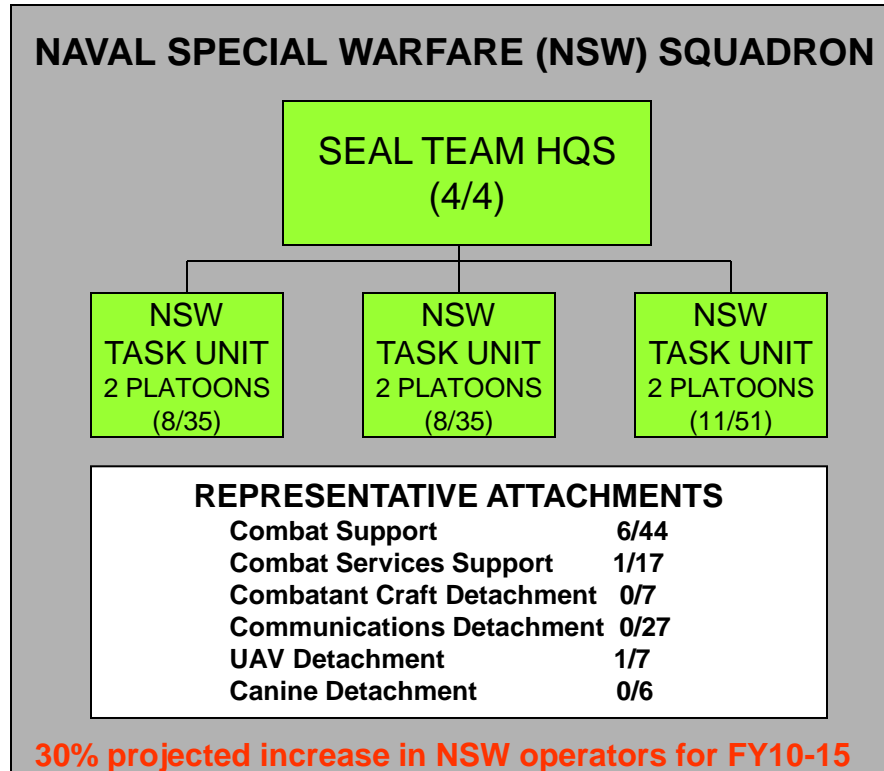
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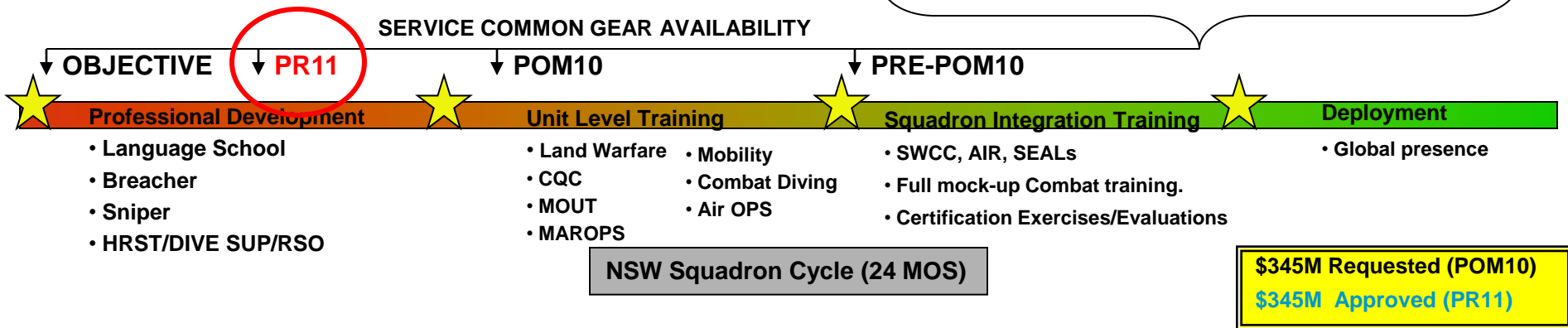


# Naval Special Warfare

## Navy Service Common Support Rationale



<p><b>Night Vision Equipment</b></p>  <p>Current Inv: ~47%</p> <p>Req: 6500 Inv: 2900</p>	<p><b>Operational Stocks</b></p>  <p>Current Inv: ~85%</p> <p>Req: 5 Inv: 4.5</p>
<p><b>Comms/Electronics</b></p>  <p>Current Inv: ~25%</p> <p>Req: 7200 Inv: 1760</p>	<p><b>Small Arm/Weapons Mounts</b></p>  <p>Current Inv: ~50%</p> <p>Req: 8800 Inv: 4500</p>







# N85 - Naval Special Warfare Relationship



- **United States Special Operations Command (USSOCOM) has service-like responsibilities to plan, program, budget and execute resources for Special Operations (SO) – peculiar support, services and equipment.**
- **Military Departments have support responsibilities to plan, program, budget and execute resources for service common capabilities for Special Operations Forces (SOF). Principal guidance is provided by:**
  - Title 10, United States Code, Sections 165, 167.
  - DOD Directive 5100.1; Functions of the Department of Defense and Its Major Components.
  - Memorandum of Agreement – Department of the Navy and USSOCOM.
- **N85 is OPNAV's principal advocate and resource sponsor for the Navy component of USSOCOM - Naval Special Warfare (NSW) Command.**
  - Other NSW (resource) sponsors on the OPNAV staff include:
    - N86 – Chem/Bio equipment, Small Tactical Unmanned Aircraft System (STUAS), SOF support attributes on future surface combatants.
    - N88 – Navy helicopter flight hours in support of NSW.
    - N87 – SOF support attributes onboard Navy submarines.
    - N6F – Some service common portable radios and electronics required by NSW (and NECC's Riverine component).
- **During each POM and PR cycle, N85 considers requests submitted by Commander, Naval Special Warfare Command for sustained and/or increased service common resourcing support.**