



National Search And Rescue Committee

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Department of Homeland Security

Department of Defense

Department of Interior

Department of Commerce

Department of Transportation

Federal Communications Commission

National Aeronautics and Space Administration

MINUTES

Regular Session I-12
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U. S. Coast Guard Headquarters
Washington, DC 20593-7363

1. Introductory Remarks.

CAPT David McBride, Alternate Chair, convened the meeting, and indicated that it would be his last meeting before retiring from the Coast Guard. He expressed appreciation to the Committee members for their work and accomplishments.

Mr. Dan Baumgartner (OSD/DPMO) presented a plaque to the Chair on behalf of DoD.

2. **Minutes.** The Committee **approved** the minutes of its December 7, 2011 meeting.

3. Member Agency Reports.

a. National Aeronautics and Space Administration (NASA).

Ms. Lisa Mazzuca (NASA) reported that NASA has the capability (prototype beacon and a receiver) to analyze potential use of spread spectrum for second generation beacons (SGBs), and that preliminary results indicated that good position accuracy could be obtained via processors currently on GPS satellites.

Ms. Mazzuca explained that compared to current beacons with signals that peak at 406 MHz, the main advantage for civil SAR of signals spread across 100 kHz is reduced susceptibility to interference. Spread signals would also be more suitable for use in covert operations and to prevent jamming.

b. Department of Commerce (DOC)/National Oceanic and Atmospheric Administration (NOAA).

Mr. Chris O'Connors (NOAA) reported that Cospas-Sarsat had been considering SGB requirements and technical tradeoffs, and is evaluating whether to incrementally improve existing beacons, or leap to use of spread spectrum as the United States and France are advocating. NOAA believes that SGBs using spread spectrum can meet or exceed all operational requirements.

Cospas-Sarsat's target is for SGBs to be on the market by 2016.

Cospas-Sarsat is also implementing a new Medium Earth orbit system (MEOSAR) with a combined GPS-GLONASS-Galileo space segment, and

with a new supporting ground system. The combined benefits of SGBs and MEOSAR will be substantial for the SAR system and beacon users. NOAA and NASA are working on replacing NOAA's polar-orbiting satellite system with equipment aboard the Joint Polar Satellite System (JPSS), but whether JPSS will carry SAR instruments remains uncertain. Consequently, plans are also being developed for a small dedicated free-flyer satellite to carry a SAR package with a planned launch date in December, 2016. The United States is obligated to provide continuity with at least two polar-orbiting satellites for SAR during the transition to a fully operational MEOSAR system.

During 2011, SARSAT had supported 207 U.S. rescues, bringing the total to 6,779; since its inception in 1982. The international Cospas-Sarsat system has contributed to over 30,000 rescues.

The Secretary explained that four NSARC agencies (NOAA, NASA, USAF and USCG) manage the SARSAT Program and policies for U.S.-coded beacons (ELTs, EPIRBs and PLBs). Work on transitioning from a SARSAT space-segment operated by NOAA to the GPS system operated by the Air Force is peaking in 2021.

c. Department of Interior (DOI)/National Park Service (NPS).

Mr. Dean Ross (NPS) announced that Mr. Ken Phillips, who has been with NPS for 28 years, is now Chief of the NPS Search and Rescue Branch. Although Mr. Phillips works in Arizona, Mr. Ross hopes that he will be able to attend some NSARC meetings.

Mr. Andrew Goodrich, who recently retired from the Marine Corps now serves as NPS's Emergency Service Ranger, will also be supporting civil SAR.

NPS, with the support of DoD and others, will convene the first course of the National SAR Academy in October at Pickle Meadows in the Bridgeport Reno area of California. Each course will train 30 students, and will cover the Incident Command System (ICS), civil SAR, and remote emergency medical responder training. In addition, this six-day-per week, six-week course covers swift water rescue, technical rescue, search management, canine operations, and certain classified topics, and has a major emphasis on physical fitness. Federal interest in the course had been overwhelming; students from the UK, Canada and Australia will also attend. The course, which earns 17 college credit hours, will be offered again in February of 2013.

NPS had established the Federal Operational EMS Committee modeled after NSARC's structure; primary objectives of this Committee include collaboration and reciprocity among federal EMS programs and collective work on terrorism issues.

d. Federal Communications Commission (FCC).

Mr. Darryl Smith (FCC) reported that the FCC, which was established in 1934, regulates non-federal uses of frequency spectrum. (Federal spectrum use is overseen by DOC's National Telecommunications and Information Administration (NTIA).) The FCC's 24-hour operations center works with other federal agencies on matters such as preventing or mitigating jamming attempts against critical infrastructure.

The FCC supports SAR via support of FEMAs' Emergency Support Function #2 (Communications). The FCC also supports national FEMA exercises including one this

year on cyber security and tribal events, and is exploring the potential roles of the FCC in such scenarios.

Mr. Allan Knox (AF) reported that the Air Force had been tracking the 3rd further notice of proposed rulemaking in the use of 121.5 ELTs; he wondered if there were any updates. Mr. Smith was unaware of any FCC progress since NSARC's last meeting. He stated that he would send an email to the Secretary with the status.

e. Department of Transportation (DOT)/Federal Aviation Administration (FAA).

Ms. Mary Strawberry (FAA) advised that Mr. Howard Burnette would become the FAA's DOT Member effective May 14, 2012, preplacing Mr. Mark Olsen who now serves as an expert witness for the FAA in court cases.

Ms. Strawberry commented on her association with the FAA's 24/7 Washington Operations Center. The FAA wants to minimize delays in providing radar or other information to support SAR, and hopes to involve an increased number of trained FAA personnel in these efforts.

The Secretary welcomed Mr. Burnette to the Committee and offered to visit the FAA to brief him on NSARC.

f. Department of Defense (DoD).

Mr. Joe Sokol (USNORTHCOM) had commented at the prior Committee meeting on plans to transfer DoD's SAR Coordinator responsibilities for Alaska from USPACOM to USNORTHCOM; he reported this transition continues, but had slowed due to realignment of the command structure in Alaska.

LCDR Tom Zdunczyk (OSD/DPMO) and Mr. Baumgartner noted that:

- DoD comments on the NSARC's *Catastrophic Incident Search and Rescue Addendum* (CISAR Addendum) could be expected by April 30th;
- DoD's instruction on military use of equipment that operates through Cospas-Sarsat, which covers registration and false alert reduction, was expected to be formally coordinated in April;
- The NATO SAR Panel was scheduled to meet in September 2012 in Amsterdam; and that
- A Secretary of Defense memo on DoD support of response to catastrophes was being addressed, with staffing recommendations and preparedness being considered.

g. Department of Homeland Security (DHS)/United States Coast Guard (USCG)/Federal Emergency Management Agency (FEMA).

The Secretary stated that the NSARC website (www.uscg.mil/nsarc) had been upgraded and provides access to all of the Committee's documents.

The revised CISAR Addendum, which includes new information on Cospas-Sarsat, Inland SAR, International SAR, Maritime SAR and other topics, was out for clearance; the Secretary requested replies by the end of April.

A revised *Coast Guard Addendum* was almost complete and expected to be available on the Committee website within two months. The Addendum addresses 'assistance entry,'

which relates to U.S. federal or flagged ships and aircraft entering the territory (including territorial seas) of other nations to effect rescues. The Coast Guard would like to simplify the assistance entry procedures.

The *National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual* (IAMSAR Manual) remained under review. The Supplement provides guidance for SAR coordination on the national level.

A *Legal Search and Rescue Addendum* will be developed with assistance of Coast Guard and Air Force legal advisors. Material on tribes, SARSAT and the FCC would probably be needed for this Addendum.

The Coast Guard had begun updating certain international SAR agreements; these agreements implement provisions of international treaties of the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) to which the United States is Party. Mexico had agreed to work with the United States on updating the maritime SAR agreement; the new agreement is envisioned to also cover aeronautical SAR, which would involve DOD (Mr. Ed O'Brien) and FAA (Mr. Kip Tourtelo) involvement on legal aspects.

The Coast Guard had submitted proposed text to the State Department for an agreement with Cuba to help formalize SAR coordination procedures more in line with international practice. Since distribution of SARSAT alerts to Cuba is part of this concern, the Coast Guard will try to work with NOAA to ensure this matter is address in any agreement that might emerge.

Other agreements being developed, updated or considered pertain, but are not limited, to the following:

- Federated States of Micronesia;
- Australia, New Zealand and 22 other South Pacific Island Nations (25-nation regional agreement);
- South Africa;
- Iceland;
- Trinidad and Tobago; and
- China

The Secretary mentioned an upcoming five-day mass rescue operation (MRO) exercise planned for a cruise ship incident in the Greenland Sea that might involve use of a USCG and a European Command C-130 aircraft. Cruise ships transit between Greenland and Canada.

Mr. Bill Kang (FEMA) reported that FEMA had been struggling to satisfy new format requirements for its Emergency Support Function Annexes. The ESF#9 (Search and Rescue) update is nearly complete. Mr. Kang is responsible for ensuring that the National Response Framework (NRF) and its Annexes are done correctly, and Mr. Dean Scott (FEMA) is the primary advisor on the content of ESF#9.

The Secretary mentioned that after Hurricane Katrina the Federal SAR Coordination Group had developed a companion handbook for use in the ESF#9 community; it includes contact information and guidance for States requesting related federal resources.

4. Working Group Reports.

a. Mass Rescue Operations (MRO).

Mr. Harold Hunt (USCG) called attention to the planned Black Swan exercise prompted by the Costa Concordia sinking in Italy in January; the full-scale exercise using an actual cruise ship will be in 2013 in Miami-Bahamas area. Agencies can choose to participate at less than full-scale levels. The next Black Swan planning session had been scheduled for May in Miami.

The Secretary emphasized the importance to the Coast Guard of being prepared to handle cruise ship scenarios, which can involve 1,500 to 6,000 persons on board, depending on the ship. An actual incident that occurs miles offshore, at night and/or with inclement weather could make lifesaving challenging. The Coast Guard is working with other agencies, including the military, and the cruise industry to develop suitable plans, policies and procedures. The Coast Guard had received multiple congressional inquiries about how the U.S. would respond to a cruise ship incident off its coast.

Mr. Dave Edwards (USCG) commented that the International Maritime Organization (IMO) would be considering passenger ship safety at its high-level Maritime Safety Committee meeting in May; however, IMO is somewhat constrained until the Costa Concordia investigation is complete. Since the Costa Concordia sinking was very near to shore, need for SAR was limited. The Chair indicated that the cruise industry will likely be more open to addressing problems such as chaos, failures of lifesaving apparatus, inability to launch lifeboats, etc. since those problems surfaced in this incident.

5. Relevant Activities.

a. National Association for Search and Rescue (NASAR).

Mr. Dan Hourihan (NASAR) reported that NASAR is implementing a computerized Association Management System (AMS); this will help to substantially reduce the cost of producing training certificates for trainees. AMS will enable people to set up an account to purchase produces and track their own history and print their own certificates.

NASAR's annual conference, co-hosted for the first time with the Mountain Rescue Association (MRA), would be at Lake Tahoe the first week of June. Planned presentations could be viewed at www.nasar.org. NASAR and the MRA had worked together closely for many years. The 2014 conference will in October at the same venue, and the International Commission for Alpine Rescue (ICAR) is expected to participate.

NASAR is again hosting, in conjunction with this year's conference, the Federal-State SAR Coordinators invitation-only meeting on June 5-6. The first day will be focused on federal partners, including NSARC agencies. The second day will focus primarily on SAR matters at the state level. The AFRCC will be participating and providing technical support for the meeting. NASAR had been pleased with the FAA's participation (Mr. Mark Olsen) at the 2011 meeting, and hoped that the FAA would support the meeting again.

b. National and International Activities.

Mr. Edwards provided the following highlights of recent and upcoming activities:

- (February 2012) The International Maritime Organization (IMO) technical project for a regional SAR system in Central America: Chile conducted the assessment phase. The seven states in Central America saw the need and value to improve SAR capability and capacity but have not agreed to the idea of two regional RCCs (one on the Pacific and one on the Caribbean). Implementation phase awaits donor support of funds and SAR expertise, but more likely needs a push to attain political will.
- (March 2012) IMO's Subcommittee on Radiocommunications and SAR (COMSAR) endorsed the massive revision of its IAMSAR Manual. Three US papers created much discussion among SAR authorities as well as maritime industry representatives (topics of social media, email not for primary distress alerting, and coupling of the international 406 MHz distress beacon with commercial two-way messaging). The matter of modernization of the Global Maritime Distress and Safety System continues its progress and will place added work demands on the Coast Guard and FCC in the near future.
- (April 2012) The United Arab Emirates initiative to hold a 'Pan Africa SAR Workshop' hosted by South Africa had a setback. The departure of the primary event organizer will likely push back the event to the Fall of 2012.

"Polar Code": Coast Guard was successful in advocating that the draft 'mandatory code for ships operating in polar waters (Polar Code) be referred to the IMO subcommittee handling SAR (COMSAR). Effort within IMO is under the ship design and equipment subcommittee with the understanding that aspects of SAR need to be included. SAR impact will on equipment within lifeboats and communications infrastructure (land and/or satellite-based). This should lead to gradual growth in SAR capability to benefit seafarers as well as for aviation incidents particularly on the Arctic routes.

Upcoming Activities:

- (June 2012) Antarctic Treaty Consultative Meeting in Australia: As its key leadership effort at the ATCM, State Department is advocating the Coast Guard concept of an Antarctic-wide SAR instrument to include all Treaty parties. Antarctica, as a landmass with no sovereignty claims allowed and surrounded by international waters, presents unique challenges including the rule of law.
- (June 2012) International Maritime Rescue Federation MRO Workshop: Coast Guard will be active in this forum which will have a series of discussion groups to develop improvements in mass rescue operations planning and response.
- (August 2012) Australia has requested Coast Guard participation in its biennial national-level SAR workshop. Australian SAR management wants to establish a strategic partnership with US SAR services.
- (September 2012) ICAO/IMO Joint Working Group on SAR: Having completed the extensive revamping of the IAMSAR Manual, this Joint Working Group can

now reorient its thinking and direction for international SAR. USAF and USCG SAR expert members will consult as to the best way forward.

- (Fall 2012) NATO SAR Panel: The SAR Panel continues to be held back by a bilateral matter but energy may be building to address this matter so that NATO can complete its effort to essentially adopt the IAMSAR Manual and for other regions to find solutions to bilateral issues holding back regional and international progress for SAR.

Mr. Edwards called attention to Amver, a voluntary worldwide ship reporting system for SAR operated by the USCG. The number of ships that submit sail plans to facilitate being called upon to assist mariners in distress continues to grow, even though other ship tracking systems and capabilities are also emerging. Mr. Ben Strong (USCG) will be invited to a future meeting of the Committee to provide a more detailed Amver brief.

c. Radio Technical Commission for Maritime Services (RTCM).

Mr. Jack Fuecshel (GMDSS Task Force) reported that RTCM had the following standards ready to amend or publish:

- Personal Locator Beacons (PLBs)
- Emergency Position-indicating Radio Beacons (EPIRBs)
- Maritime Survivor Locating Devices (MSLDs)
- VHF-FM Handheld Radios with GPS and Digital Selective Calling
- Satellite Emergency Notification Devices (SENDs)

NASA has developed GPS testing scenarios to be included in these standards to enable robust GPS locating. GPS will become mandatory for new EPIRBs as recommended by the National Transportation Safety Board (NTSB). RTCM was actively working on second generation beacon standards and provisions for transmitting automatic identification system (AIS) locating signals.

Radios built to RTCM's new VHF-FM Handheld standard send a GPS location with a Digital Selective Calling (DSC) Distress Message. The FCC plans to adopt this standard, which will make the radios more effective for distress alerting and compatibility with the Coast Guard Rescue 21 system.

RTCM will petition the FCC to reference all the other standards mentioned above in its rules.

d. Global Maritime Distress and Safety System Task Force (GMDSS Task Force).

Mr. Fuecshel noted that the Task Force had met on January 11th.

The Task Force was promoting proper public use of VHF-DSC radios, since many owners of these radios had not yet obtained an MMSI number that is needed to identify radios and enable emergency functions. Also, most of these radios had not been connected to GPS receivers so that distress alerts would include GPS locations.

The Task Force had recommended that the Coast Guard start regulatory proceedings to implement its new statutory authority to require emergency beacons on recreational

vessels which go more than 3 miles offshore. The Coast Guard had subsequently requested an opinion on this matter from the National Boating Safety Advisory Council (NBSAC), which it expects to receive later this year.

IMO was expected to approve a scoping exercise on GMDSS modernization, with RTCM President, Bob Markle, as Chairman of a Correspondence Group to conduct most of the work between IMO meetings.

The next Task Force meeting had been scheduled for May 10th, when the Task Force plans to begin review of equipment carriage rules for small passenger vessels.

e. Civil Air Patrol (CAP).

Mr. John Swain (CAP) reported that Congress had, in recognition of CAP's effectiveness, increased CAP's FY12 budget by \$11.2M; part of that money will help them fund 17 new Cessna 182T aircraft and 2 Cessna 206 six-place aircraft. More of these larger aircraft will likely be added to CAP's current fleet of 550 aircraft in coming years. CAP would like more of the larger aircraft to support Air Force disaster response requirements, such as obtaining full-motion video and having day and night SAR capability. The mission package might handle infra-red video.

CAP intends to have a new communications vehicle available for viewing at future NSARC meeting; its communications capabilities support CAP aircraft and work with other agencies. One of the vehicles special features is a high technology mobile HF antenna.

CAP has been improving its training on handling various types of missing-persons cases, and has been increasingly supporting the AFRCC with cell phone and radar analysis.

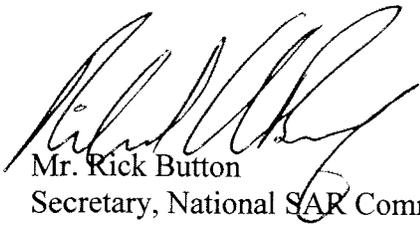
Mr. Hourihan added that many local law enforcement agencies involved in SAR incorrectly believe that cell phone forensics require a warrant. Mr. Hourihan serves on the National Sheriff Association's Special Operations Committee, and chairs NSA's SAR and Incident Management Subcommittee. He hopes to arrange a briefing on cell phone forensics for the SAR Coordinators meeting in June.

6. Other Business.

Mr. Knox (USAF) commented about SARSAT's transition to a space-segment hosted by the GPS system; essentially all hurdles to installing a Canadian provided civil SAR package aboard the military satellites had been resolved. Instrument integration costs will be shared by the Coast Guard and Air Force. Provisions for Canadian participation will be included in a broader U.S.-Canadian R&D MOU expected to be signed shortly. Canada considers this project to be a very high priority, and the first launch with Canada's equipment is expected in the 2017-2018 timeframe.

7. Next Meeting.

The date for the next Committee meeting is to be determined.



Mr. Rick Button
Secretary, National SAR Committee

Date: AUG - 3 2012

Enclosure: List of Participants

Enclosure

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LIST OF PARTICIPANTS

	Names	Affiliations
BAUMGARTNER	Dan	OSC/DPMO
BURNETTE	Howard	DOD/FAA
BUTTON	Rick	USCG
DUGDALE	Jim	AFRCC
EDWARDS	Dave	USCG
FOSTER	Willie	USCG
FUECSHEL	Jack	GMDSS T/F
FUHRMANN	David	AFRCC
GOODRICH	Andrew	NPS
HOURIHAN	Dan	NASAR
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MAZZUCA	Lisa	NASA
MCBRIDE	David, CAPT	USCG
O'CONNORS	Chris	NOAA
ROSS	Dean	NPS
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SOKOL	Joseph	USNORTHCOM
STRAWBERRY	Mary	FAA
SWAIN	John	CAP
TEDESCHI	Frank	FEMA
THEODORAKOS	George	NASA/MEI
THOMES	Ralph	NGB
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