



National Search And Rescue Committee

Suite 3106 • 2100 2nd Street SW • Washington DC 20593-0001
Phone: (202) 372-2090 Facsimile: (202) 372-2912

Department of Defense
Department of Interior
Department of Commerce
Department of Transportation
Department of Homeland Security
Federal Communications Commission
National Aeronautics and Space Administration

MINUTES

Regular Session 1-08
February 21, 2008
U. S. Coast Guard Headquarters
Washington, DC 20593-0001

INTRODUCTION

The meeting convened with CAPT Chris Hall, USCG, as Acting Chair. The list of attendees is provided as enclosure (1).

CAPT Hall announced that he and the Chair (RADM Justice) would be transferred to new Coast Guard assignments soon, and that the new Committee Chair would be RDML Joseph Castillo. CAPT David McBride will be the new Chief of Search and Rescue for the Coast Guard.

CAPT Hall thanked the Committee for its work in important areas such as developing a new Catastrophic Incident Search and Rescue (CIS) Addendum; diligently facilitating the phase out of 121.5 MHz beacons; working to make the Distress Alerting Satellite System (DASS) a reality, and supporting the Universal Safety Oversight Audit Program (USOAP) of the International Civil Aviation Organization (ICAO). He then spoke of the pleasure it had been working with everyone who had participated in the work of NSARC.

1. **Minutes.** The November 15, 2007, Regular Session meeting minutes were approved.

2. **Member Agency Reports.**

a. **Department of Commerce.** Mr. Ajay Mehta (NOAA) reported:

- (1) The National Oceanic and Atmospheric Administration (NOAA) had been focused on 121.5 MHz phase-out efforts and work on establishing DASS;
- (2) That Cospas-Sarsat's next role with DASS would be review of data relating to the Proof of Concept address, testing and initial in-orbit validation;
- (3) That Cospas-Sarsat had signed a Declaration of Intent to cooperate with Europe on Galileo, which is envisioned to be, along with DASS, part of the future medium Earth orbit SAR (MEOSAR) system;
- (4) That NOAA is working to fill the position of SARSAT Program Manager that he had left; and
- (5) That Mr. Dann Karlson returned to the NOAA/SARSAT staff.

- (6) Mr. Mehta also detailed NOAA's reorganization efforts that merge SASRSAT with the Office of Satellite Operations, and of NOAA's Strategic Plan, both of which emphasize the importance of SARSAT within NOAA.
- b. **National Aeronautics and Space Administration.** Mr. Wayne Hembree (NASA/MEI; representing NASA), asked that NASA's work be addressed during the R&D Working Group report.
- c. **Department of Interior.** Ranger Greg Lawler (NPS) introduced Ranger Cody Cole from the Zion National Park, Utah, who was working temporarily at NPS Headquarters. He further commented:
- (1) NPS had advertised a GS-13 position at Headquarters location that will have responsibilities for areas including SAR, emergency medicine, and emergency management;
 - (2) NPS conducts Incident Command System (ICS) and Unit Leader classes and is updating its ICS policies; and
 - (3) NPS had supported efforts to assist in coordinating a response to the uncontrolled re-entry of a disabled DOD satellite.
- d. **Department of Transportation.** Mr. Brian Throop (FAA) submitted a report to NSARC by email on FAA activities, commenting:
- (1) FAA continues to work with the Federal Emergency Management Agency (FEMA), State Emergency Management Agencies, Department of Defense (DOD/AFNorth), and the National Guard Bureau (NGB) to develop a Joint Disaster Concept of Operations (J-CONOPS) for aviation;
 - (2) The J-CONOPS would cover traffic flow management, airfield operations and other core activities other than mission priority;
 - (3) FAA is working with NGB and DOD to develop a Flight Status Monitor (FSM) that will allow DOD to manage mission priority for active flights in harmony with FAA flow control;
 - (4) FAA is contacting State and Local Emergency Management Agencies/Aviation Units to provide pre-coordinated transponder codes and temporary flight restriction (TFR) information to LE, medevac and SAR aircraft prior to time of need (similar federal level agreements);
 - (5) FAA remodeled its Crisis Management Center (CMC) to better manage airspace access (the CMC can handle hundreds of calls per hour); and
 - (6) That FAA has received NSARC's letter on 406 MHz emergency locator transmitter (ELT) carriage (Enclosure 2); letter was with the FAA Administrator for review. Numerous FAA staffs, including the Flight Standards, had been contacted on behalf of NSARC to ensure awareness of this matter.
- e. **Department of Defense.** LCDR Matthew Niedzwiecki (DOD/DPMO) reported:
- (1) All DOD Services have become a major users of 406 MHz beacons, which may have some impact on DASS requirements;

- (2) DOD expects to be completely transitioned to 406 MHz beacons before the termination date for satellite processing of 121.5 MHz signals on February 1, 2009; and
 - (3) DOD is continuing efforts to develop its own beacon registration database.
- f. **Department of Homeland Security.** Mr. Rick Button (USCG/NSARC Secretary) stated:
- (1) The draft CIS Addendum is nearing completion, and will soon be available to NSARC's National SAR Supplement Task Force for review;
 - (2) NSS Task Force may meet before the end of March;
 - (3) The CIS Addendum will provide concise guidance for SAR responders on the ground on a variety of relevant topics, such as geo-referencing and handling situations involving pets and other animals;
 - (4) The NSARC website (www.uscg.mil/nsarc) has been substantially updated with new information (including NSARC's Geo-Referencing Matrix); the Member Agencies might consider other information that could be added as well;
 - (5) The Secretary helped FEMA review the Emergency Support Function 6 (Mass Evacuation) Annex to the Federal Response Framework (NRF);
 - (6) The National Response Framework (NRF) is completed; the NRF and numerous related documents are available on the FEMA website (<http://www.fema.gov/emergency/nrf/mainindex.htm>); and
 - (7) The Coast Guard's Mass Rescue Operations (GS-13) position should be filled shortly.

3. Working Group and Task Force Reports.

- a. **Research and Development Working Group.** Mr. Hembree reported on behalf of Mr. Dave Affens (Work Group Chair):
- (1) DASS has several proof-of-concept transponders aboard GPS satellites in support DASS development; DASS will be able to instantly detect and locate 406 MHz beacons;
 - (2) NASA's DASS ground station acceptance testing will be completed in early March;
 - (3) The Department of State is sponsoring a Cospas-Sarsat Working Group that is coordinating DASS with the Russian MEOSAR GLONASS system; anticipate a U.S./Russia Work Group meeting in May 08, at, or near Kennedy Space Center;
 - (4) NASA has started a new R&D effort: develop software tools to assist search planners in finding missing aircraft by identifying high-probability crash sites. Software will be based on NASA's Worldwind Program that provides high-resolution 3-D terrain visualization combined with other valuable layered data such as weather; and
 - (5) NASA would appreciate SAR community participation in developing the Worldwind SAR capability; NPS and the National Transportation Safety Board (NTSB) have already expressed a desire to assist.

- b. **121.5 MHz Phase-out Working Group.** Mr. Al Knox (USAF) advised the Committee that:
- (1) NTSB had written to the FAA urging it to lobby Congress to amend legislation to provide for carriage of 406 MHz ELTs, and that the FAA had replied saying that it intended to study the issue;
 - (2) NSARC sent a letter to the FAA in support of the NTSB's position (outlined above) and offered assistance with FAA's proposed study. The NSARC letter pointed out, among other things, that the International Telecommunication Union (ITU) Radio Regulations will prohibit the use of 121.5 MHz beacons after February 1, 2009;
 - (3) The Aircraft Owners and Pilots Association (AOPA) is conducting a survey on its website on awareness of the 121.5 MHz ELT phase-out issue among its members; and
 - (4) Mr. Knox noted that his job situation would prevent him from continuing to Chair this Work Group and recommended that the Committee consider assigning Mr. Dann Karlson of NOAA to relieve him as Chair.
- c. **Universal Safety Oversight Audit Program (USOAP) Task Force.** LCDR Kathy Niles (USCG) reported:
- (1) As a result of the outstanding success of the ICAO audit, during which no findings were made concerning the U.S. National SAR System, the Acting FAA Administrator presented Certificates of Appreciation to Mr. Knox and Mr. Karlson for their hard work and support;
 - (2) There would be some continued audit follow up actions;
 - (3) This Task Force completed its work and will be discontinued.
 - (4) Additionally, Mr. Karlson noted that the ICAO auditors, while recognizing the U.S. SAR System as among the best in the world, had suggested some areas (these were not findings) that could be improved:
 - (a) National implementation of ICAO decisions concerning training of RCC staff;
 - (b) U.S. implementation of ICAO 406 MHz ELT measures; and
 - (c) That the Dominican Republic, which is now receiving distress alerts directly from Cospas-Sarsat and is being trained by NOAA, will be undergoing the USOAP audit this year.
 - (5) Mr. Dave Edwards added that he expected the USOAP audit to have a very positive impact on aeronautical SAR globally; there are indications that some Governments are paying more attention to their SAR systems because of the USOAP audit.
- d. **National SAR Supplement (NSS) and Policy and Procedures Manual.** The Secretary reported:
- (1) Work on the NSS and the CIS Addendum had limited the ability to work on the Committee's Policy and Procedures Manual;
 - (2) That the CIS Addendum will provide Federal SAR responder guidance; the first draft is nearly complete;

- (3) Work on the NSS will continue when the CIS Addendum is complete;
- (4) The Coast Guard Addendum is also being updated; and
- (5) Mr. Knox noted that work is also continuing on the Inland SAR Addendum; anticipate draft completed for review shortly.

4. Presentations.

- a. **Mass Rescue Vehicle.** Mr. David Carambat (Design Director, Industrial Object, LLC) gave a presentation his company's development of a rescue vehicle. Mr. Carambat advised the Committee:
 - (1) His company, Industrial Object, LLC, has taken advantage of its expertise in maritime and high speed craft design to develop a versatile high-performance rescue vehicle;
 - (2) Hurricane Katrina showcased the need to operate in sizeable areas, much of which are flooded; flooding is the most common type of natural disaster in the U.S.;
 - (3) A durable, field-fixable amphibious tug-barge system that can be easily deployed would be a valuable disaster rescue asset;
 - (4) Ideally, the Coast Guard or FEMA could preposition such vehicles to enable rapid response; and
 - (5) Mr. Carambat invited NSARC to send representatives to New Orleans to see and assess the vehicles. Mr. Carambat can be contacted at 985-893-2432 for more information.
- b. **SPOT Presentation.** Mr. Robert Davis (CEO, Travel Safety Group) discussed GOES international emergency response centers that processes information from SPOT, a Globalstar, Inc., subsidiary that allows SPOT equipment users to personally communicate from remote locations around the globe to friends and family, or to call for assistance. The floatable SPOT equipment can be used to call for help from emergency responders or others, send periodic "normal" reports, or to allow certain persons to track movements. Mr. Davis reported:
 - (1) GEOS has been tracking locations of GPS cell phones and supporting British intelligence and law enforcement operations;
 - (2) GEOS provides some SAR resources and is underwritten by Lloyds of London for emergence services;
 - (3) SPOT devices, which cost approximately \$150.00 and requires an annual fee of about \$100, are mainly marketed to the U.S. recreation communities;
 - (4) Globalstar/SPOT asked GOES to monitor SPOT communications with GOES equipment, which is currently used worldwide to transmit emergency signals with GPS locations (service is still limited to areas overseas that have ground stations installed);
 - (5) He would like to meet with SAR representatives to further discuss SPOT, in particular, its interface with the SAR system;

- (6) Iridium also operates a response center and is interested in implementing a two-way distress communications service;
- (7) Iridium equipment will not operate until it is registered; and
- (8) Iridium wants to ensure that its system will meet emergency responder needs.
- (9) More information can be obtained from www.findmespot.com or by calling 408 933-4518.

5. SAR-Related Meetings and Activities.

a. National Association for Search and Rescue (NASAR). Mr. Cole Brown (Maryland State Police/NASAR) reported:

- (1) NASAR's next annual conference will be in Colorado Springs, May 29-31, 2008;
- (2) The State SAR Coordinator's meeting will be held on May 28, 2008, in association with the NASAR conference; NSARC Secretary and AFRCC will be presenting; and
- (3) The afternoon of the SAR Coordinator's meeting will be reserved for discussions just among the State representatives.

b. National/International Activities. Mr. Dave Edwards (USCG) informed the Committee:

- (1) November 26-30, 2007, a Pacific Island Nations SAR Workshop was conducted; the event was sponsored by the Coast Guard and funded by a Regional authority and included participation by Australia, New Zealand and French Polynesia. The workshop may involve DOD's U.S. Pacific Command in the future, and is expected to become a biennial event;
- (2) At the request of the Mexican Navy, Coast Guard assisted with a SAR Assessment in order to identify key training and equipment requirements as the Mexican Navy continues development of their National SAR System;
- (3) December 3-7, 2007, the Coast Guard San Juan Rescue Sub-center participated in a Japan Coast Guard-sponsored twelve-nation International SAR Workshop; the workshop theme was development of regional SAR systems; and
- (4) February 2008, a meeting of the Directors General, Civil Aviation in the Caribbean had convened; the group reactivated its Eastern Caribbean SAR Committee, adopted the State SAR Matrix as a tool for States to use for annual self-assessments and reports, had improved its regional mass rescue operations plan.

(5) Upcoming events:

- (a) Arctic Summit (March 18-20, 2008) - will include a discussion of SAR issues;
- (b) COMSAR 12 (April 7-11, 2008) - IMO's COMSAR Sub-committee will convene; discussions will include maritime and civil aviation SAR matters, as well as discussions involving the International Cospas-Sarsat program;
- (c) Caribbean SAR Workshop (June 2008) - Organized by the Coast Guard in San Juan and supported by the U.S. Southern Command; and

- (d) Antarctic Treaty Consultative Meeting, Ukraine (June 2008) – Anticipate a greater SAR focus due to two mass rescue incidents that occurred in 2007, which included the sinking of the passenger ship EXPLORER.
- (6) Mr. Edwards also mentioned SAR-related meetings in New Zealand, Vietnam and India which the Coast Guard will be unable to support for various reasons.
- c. **Radio Technical Commission for Maritime (RTCM).** Mr. Bob Markle (RTCM) reported:
 - (1) RTCM Special Committee (SC) 110 hopes to complete revision of the Personal Locator Beacon (PLB) standard in time for publication this summer. The new PLB Standard will improve testing for receipt of both 406 MHz signals by satellite and 121.5 MHz homing signals as well as GPS signal acquisition by beacons that use location protocols to transmit locations (NASA is supporting SC-110 in this work);
 - (2) That SC-110 is also considering performance standards for GPS processors in VHF handheld radios, in association with a proposed regulation to require some radios to integrate GPS capability;
 - (3) That RTCM continues to support Cospas-Sarsat through active participation and submitting papers to various Cospas-Sarsat meetings; and
 - (4) RTCM's Annual Assembly will be held May 4-9, 2008, in San Diego; a GMDSS Task Force Meeting will be held, as well as a Beacon Manufacturer's Workshop.
- d. **GMDSS Task Force.** Captain Jack Fuechsel (GMDSS Task Force Coordinator), reported the following highlights of the Task Force meeting held January 9, 2008:
 - (1) The Coast Guard's HF Weather Broadcasts by Fax and Voice will continue due in part to lack of viable alternatives;
 - (2) A review of Coast Guard radio safety requirements for small fishing vessels (below 300 tons) and requirements of the National Marine Fisheries Service (NMFS) for equipment to participate in the Vessel Monitoring Service (VMS) was tabled pending availability of a related USCG-NMFS report to Congress;
 - (3) The Coast Guard briefed the Task Force on successful results of airborne direction finding directly on the 406 MHz EPIRB alerting signal: much greater detection ranges than can be achieved than on the 121.5 MHz homing signals (all Coast Guard aircraft and Rescue 21 towers are being equipped with 406 MHz DF capability);
 - (4) The Task Force is concerned that the Federal Communications Commission still had not allowed manufacturers to sell Class B AIS devices;
 - (5) The Task Force supports U.S. preparatory work for IMO's COMSAR 12 meeting; Captain Fuechsel will be attending; and
 - (6) The next Task Force meeting will be held on May 08, 2008, at the RTCM Annual Assembly.
- e. **Civil Air Patrol (CAP).** Dr. Paul Schuda (CAP) reported:
 - (1) The Air Force Rescue Coordination Center (AFRCC) had been using CAP's Web Mission Information Reporting System (WMIRS) to task CAP units to perform

missions; units equipped with WMIRS report excellent results. WMIRS enables text messages, and may eventually enable automatic reporting; and

- (2) CAP has been flying a large number of tornado damage assessment missions in support of State emergency management agencies, the National Weather Service and 1st Air Force in Alabama, Arkansas, Kentucky, Mississippi and Tennessee; over 400 pictures were taken to assist with emergency response and damage documentation.

6. **Next General Session.** The Committee **decided** to schedule its next General Sessions for July 24, 2008.

Respectfully submitted:



Rick Button
Secretary,
National SAR Committee

Date: 26 Mar 08

Approved:



CAPT Chris Hall
Acting Chair, National SAR
Committee

Encl: (1) Attendance List
(2) NSARC letter of January 31, 2008 to FAA Administrator

ATTENDANCE

NSARC REGULAR SESSION I-08
FEBRUARY 21, 2008

NAME	AGENCY
CAPT CHRIS HALL	USCG
LT BRIAN HOCKIN	OSD
MR. DANN KARLSON	USCG
MR. RICHARD BUTTON	USCG
MR. GREG LAWLER	NPS
DR. PAUL SCHUDA	CAP
MR. DAN LEMON	CSC
MR. ALLAN KNOX	AFRCC
LCDR KATHY NILES	USCG
CAPT JACK FUECHSEL	GMDSS
MR. TERRY HILL	C-PORT
MR. COLE BROWN	NASA
MR. AJAY MEHTA	NOAA
MR. WAYNE HEMBREE	NASA/MEI
MR. BOB MARKLE	RTCM
MR. DAVE EDWARDS	USCG
MR. DAVID CARAMBAT	MARINE DESIGN
MR. ERIC FOGLE	MD STATE POLICE/NASAR
MR. CHRIS O'CONNOR	NOAA
MR. BOB DAVIS	GEOS
LCDR MATTHEW NIEDZWIECKI	DOD
MR. DOUG PATTERSON	IRIDIUM SATELLITE
MR. DAVID WIGGLEWORTH	IRIDIUM SATELLITE
MR. CODY COLE	NPS
MS. WILLIE FOSTER	USCG

ENCLOSURE (1)



National Search And Rescue Committee

Suite 3106 • 2100 2nd Street SW • Washington DC 20593-0001
Phone: (202) 372-2088 Facsimile: (202) 372-2912

Department of Homeland
Security

Department of Defense

Department of Interior

Department of Commerce

Department of Transportation

Federal Communications
Commission

National Aeronautics and
Space Administration

JAN 31 2008

Mr. Robert Sturgell
Acting Administrator
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Dear Mr. Sturgell:

I am writing on behalf of the National Search and Rescue Committee (NSARC) concerning recent developments which impact users of 121.5 MHz beacons; the vast majority of which are emergency locator transmitters (ELTs) carried on board aircraft. As you are already aware, satellite detection and processing of 121.5 MHz emergency beacons will cease on February 1, 2009. Recently, the International Telecommunications Union (ITU) has removed the allocation of 121.5 MHz frequency for beacon alerting effective February 1, 2009. By that date, the global switch to 406 MHz beacons within the land, maritime and aviation communities should be complete. Currently, United States regulations prohibit the use of 121.5 MHz personal or maritime beacons, but still allow the problematic 121.5 MHz ELT to be carried on aircraft.

In a September 4, 2007, letter to the FAA, Mr. Mark Rosenker, Chairman, National Transportation Safety Board (NTSB), recommended that the FAA seek, without delay, Congressional authority to require only 406 MHz ELT carriage on aircraft and offered compelling reasons for the recommendation. In addition, the International Civil Aviation Organization (ICAO), in its final out-brief on November 19, 2007, to senior FAA officials after the United States Universal Safety Oversight Audit, expressed concern about lack of United States compliance with applicable ICAO 406 MHz ELT carriage requirements. NSARC strongly endorses the NTSB and ICAO recommendations.

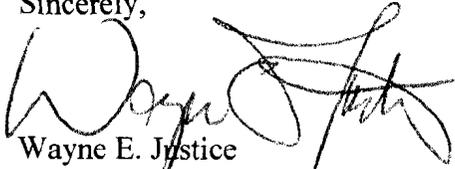
The FAA's December 3, 2007, reply to the NTSB stated that the FAA needs to conduct a more comprehensive cost-benefit study to weigh the advantages of 406 MHz ELTs to the legacy 121.5 MHz ELT. NSARC member agencies would like to assist the FAA in its planned study including consideration of 406 MHz personal locator beacons (PLBs) for some aircraft. While the merits of new technologies such as ADS-B are still being evaluated, none of these technologies appear capable of performing the critical ELT functions, or are as cost-effective as the price of 406 MHz beacons continues to fall.

NSARC remains quite concerned about the risks to United States aircraft flying domestically and internationally without 406 MHz ELTs after February 1, 2009,

and welcomes the FAA's efforts to mitigate this issue. I deeply appreciate your consideration of our views and offer for assistance on this very important matter.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne E. Justice". The signature is fluid and cursive, with a large initial "W" and a long, sweeping underline.

Wayne E. Justice
Rear Admiral, U.S. Coast Guard
Chairman, National Search and Rescue
Committee