

Interagency Memorandum of Agreement For the United States Satellite Aided Search and Rescue System

The Parties to this Memorandum of Agreement (MOA):

- a) The National Oceanic and Atmospheric Administration (NOAA);
- b) The National Aeronautics and Space Administration (NASA);
- c) The United States Department of the Air Force (DAF), consisting of both the United States Air Force (USAF) and the United States Space Force (USSF); and
- d) The United States Coast Guard (USCG);

Noting the importance of search and rescue (SAR) and related services in saving lives and property, and the benefits of applying satellite technology to improving the effectiveness and efficiency of SAR operations;

Noting the successful implementation of the national Search and Rescue Satellite Aided Tracking (SARSAT) and international Cospas-Sarsat Programs, which have contributed to the rescue of more than 51,000 persons as of the entry into force of this Agreement;

Committing to cooperate to provide SAR distress alerting services, to meet domestic needs and obligations under international law;

Desiring particularly to support United States compliance with provisions of the *Convention on International Civil Aviation*, the *International Convention on Maritime Search and Rescue*, and the *Safety of Life at Sea Convention* and related international agreements and guidance;

Accounting for relevant requirements of many statutes, regulations, plans, treaties, and agreements outside of this MOA, including requirements for the United States as a Party to the 1988 *International Cospas-Sarsat Program Agreement (ICSPA)* and to the 1995 *Sarsat Memorandum of Agreement*, and of the *Agreement on the Promotion, Provision, and use of Galileo and the GPS satellite-based Navigation Systems and Related Applications* of June 26, 2004;

Being Participants of the *United States National Search and Rescue Plan* and members of the National Search and Rescue Committee, and striving to help achieve the objectives of the Committee as set forth in the *United States National Search and Rescue Committee Interagency Agreement*; and

Wishing to support the *U.S. Space-based Positioning, Navigation and Timing Policy* of December 15, 2004.

Have agreed as follows:

PURPOSE AND SCOPE

Note: For purposes of this MOA, the term "SARSAT" refers to the United States interagency SARSAT Program. The term SARSAT covers interagency involvement in current and developing space-based systems and in the international Program. The

term "international Program" is used in this MOA to refer collectively to the international SARSAT and Cospas-Sarsat Programs.

- 1) This MOA (hereinafter "MOA" or "Agreement") provides a legal and policy framework and Party commitments to continue supporting the existing operational SARSAT and international Cospas-Sarsat programs, and to develop and operate a Medium-altitude Earth Orbiting SAR (MEOSAR) system.
- 2) This MOA, upon entry into force, supersedes the *Interagency Memorandum of Agreement for the United States Satellite-Aided Search and Rescue System*, 2015, as revised and amended.

AUTHORITIES

- 3) This MOA is executed under the following authorities:
 - a) DOD Directive 3003.01, on *DOD Support to Civil Search and Rescue, September 26, 2011*, and DOD Instruction 4000.19, on *Support Agreements* apply to the DAF;
 - b) 51 U.S.C § 20113 (e) applies to NASA;
 - c) 33 U.S.C. § 883a and § 883e, and 49 U.S.C. § 44720 apply to NOAA;
 - d) 14 U.S.C. § 102 and § 504(a)(20) apply to the USCG; and
 - e) The Economy Act, 31 U.S.C. § 1535 and § 1536 apply to the USCG and DAF.

COORDINATION AND OVERSIGHT

- 4) This MOA will be implemented under the coordination and oversight of a Program Steering Group (PSG).
 - a) A representative of NOAA serves as Chair of the PSG, and arranges for suitable administrative services for PSG support.
 - b) The PSG shall:
 1. Be responsible for the overall management of the program and is comprised of representatives from each Party;
 2. Be responsible for policy, management, budgeting, and strategic planning for interagency matters covered by this MOA;
 3. Establish subordinate groups for development of operating plans, requirements, specifications, outreach activities, and related international positions, or other tasks it deems appropriate;
 4. Normally make decisions by consensus; however, where consensus cannot be reached, decisions will be made by a majority vote at a convened meeting with all members present, or by an informal poll of the members with the results properly documented; and

5. Shall ensure that senior managers within each Agency represented by the PSG membership is informed or involved, as appropriate, regarding key Program milestones, plans, decisions, resource requirements, or evolution.

RESPONSIBILITIES

Common Responsibilities

- 5) The primary common responsibilities of the Parties include the following:
 - a) Support MOA implementation;
 - b) Manage and coordinate United States activities by efforts that include, but are not limited to:
 1. Providing appropriate support and attendance at Program meetings (a meeting quorum is suitable representation from each Party); and
 2. Providing appropriate collaboration and mutual support for implementing this MOA including, but not limited to, consultation among managers, formulating policies, attending relevant meetings of other organizations, conducting exercises, developing procedures, techniques and equipment, conducting training, providing feedback, and generally taking steps to help ensure the success of SARSAT and the international Program;
 - c) Support ongoing evaluation of the SARSAT Program and system, including development and implementation of MEOSAR and distress beacon modernization;
 - d) Support SARSAT strategic planning; and coordinate and develop associated agency implementation plans;
 - e) Support outreach efforts to educate the public about SARSAT, and to promote proper use and registration of distress beacons by persons at risk;
 - f) Assist with relevant education efforts for SAR personnel, equipment manufacturers, regulatory authorities, and other Program stakeholders;
 - g) Coordinate efforts on relevant legislative or regulatory initiatives;
 - h) Identify operational SAR and SARSAT performance requirements that the Parties can help satisfy;
 - i) Consider the interests of the current and future operational international Program in decisions regarding MEOSAR implementation and distress beacon modernization;
 - j) Support development and operation of the international SARSAT program and system by participating on behalf of the United States in meetings of the Cospas-Sarsat Council, Joint Committee, and other associated forums as appropriate;
 - k) Conclude, individually or collectively, arrangements with entities that are not Party to this MOA that may help the Parties to fulfill their responsibilities;

- l) Plan future SARSAT program structure and redefine and affirm, as appropriate, the roles and responsibilities expected of the Parties in 2021 through 2026 in particular, recognizing joint USCG-DAF sponsorship of the ongoing SAR/Global Positioning System (GPS) transition, NOAA's diminishing role as a U. S. SARSAT space segment provider, DAF's increasing role as new space segment provider, the USCG's express statutory authority for SAR and further recognizing that NOAA's participation in, and commitment to, the future SARSAT program (MEOSAR) could be reduced or that services currently provided might continue on a reimbursable basis, and updating or replacing this MOA as necessary; and
- m) May, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.
 - 1. Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that a copy of this Agreement will be disclosed, without redactions, in accordance with the NTAA.

Party Responsibilities

NOAA

- 6) NOAA shall:
 - a) Serve as the lead United States agency for the national SARSAT and international Cospas-Sarsat programs;
 - b) Manage operate, maintain and control the U.S. Low Earth Orbiting SAR (LEOSAR) satellites;
 - c) Procure, manage, operate, maintain and control any Geostationary Operational Environmental Satellite (GOES);
 - d) Procure, manage, operate, maintain and control any U.S. LEOSAR, GOES and MEOSAR ground segments, as well as associated backup equipment, to receive and process data from U.S. or foreign satellites, and associated communications, including data processing and communications support for U.S. rescue coordination centers (RCCs) as agreed by the Parties;
 - e) Procure, manage, operate, maintain, and control the U.S. Mission Control Center to collect, process, store and sort distress and security alert data from LEOSAR, GOES, and MEOSAR ground stations and from mission control centers operated by other nations, and properly distribute the data to national and international SAR authorities or to other mission control centers;
 - f) Provide for the construction, integration and launch of SAR hardware to be flown on NOAA satellites in cooperation with NASA and other nations as appropriate;

- g) Maintain the national register for 406 MHz emergency beacons and provide data within and outside the U.S. in accordance with established plans;
- h) Provide spacecraft data to ground segment providers as appropriate;
- i) Provide, as appropriate or required, oversight and support for the Cospas-Sarsat Secretariat and for national and international meetings;
- j) Coordinate development projects and contracts undertaken by the PSG;
- k) Provide SARSAT administrative and secretarial support;
- l) Coordinate interoperability and planning for MEOSAR;
- m) Support tests and demonstrations through the U.S. ground system and, as appropriate, through the international Program; and
- n) Coordinate resolution of national and international spectrum management issues.

NASA

- 7) NASA shall perform certain specified functions at its own expense, while others will be performed on a reimbursable basis. This MOA serves as a framework for this partnership.
 - a) NASA shall perform the following functions, which are in line with the role of NASA's Search and Rescue Office, at NASA's sole expense:
 - 1. Lead technical assessments in accordance with NASA's human exploration missions (e.g. SAR support for Orion, Commercial Crew, and Soyuz); and
 - 2. Provide for maintenance and operation of the NASA SARSAT Infrastructure as it applies to human exploration missions.
 - b) NASA shall provide, on a non-interference basis, the following functions on a reimbursable basis, on terms agreed to by the applicable parties in agreements separate from and independent of this Agreement:
 - 1. Technical support for the national and international working groups;
 - 2. Agency-specific Research & Development (R&D) and technical support to the other Parties;
 - 3. Integration, test, post-launch evaluation and performance monitoring of the LEOSAR, Geostationary SAR (GEOSAR), and MEOSAR spacecraft;
 - 4. Maintenance and operation of the NASA SARSAT ground systems as needed to conduct R&D and testing as requested by the other Parties;
 - 5. Define space and ground segment performance, and provide for integration and testing of the Distress Alerting Satellite System (DASS) payload aboard the GPS satellites;
 - 6. Define space and ground segment performance, and provide for design, development and testing of the SAR/GPS repeater payloads aboard GPS satellites;

7. Work with the other Parties and additional agencies to help ensure that the SAR and DASS payload integration and performance meets U.S. SARSAT Program requirements;
8. Support Demonstration & Evaluation activities; and
9. At the direction of the PSG, develop enhancements and other capabilities that will support the space, ground and distress beacon segments, and provide these solutions to the U.S. SARSAT Program for operational consideration.

DAF

- 8) The DAF shall:
 - a) Use SARSAT and international Cospas-Sarsat system data to help carry out the USAF operational SAR responsibilities;
 - b) Through the USAF and USSF, identify SARSAT and international Cospas-Sarsat operational requirements, and assist in developing related functional and environmental specifications for these systems and their interfaces with SAR services;
 - c) As authorized, support the DoD CIO and National Search and Rescue Committee (NSARC) Research and Development (R&D) Working Group to identify, prioritize, support, fund and oversee Department of Defense (DoD) specific SARSAT and R&D efforts;
 - d) Provide facility support for SARSAT equipment hosted at USAF/USSF facilities;
 - e) Continue to evaluate SARSAT's effectiveness to help identify needed system improvements and potential new applications;
 - f) Through USAF:
 1. Ensure SAR personnel are properly informed about SARSAT and the international Program, and are well-trained in the use of data from these systems;
 2. Coordinate procedures for processing received SARSAT data;
 3. Document beacon false alerts, actively work to reduce them and participate in efforts to minimize their detrimental effects;
 4. Report known beacon problems to appropriate authorities and support suitable corrective actions; and
 5. Coordinate regulatory requirements for certification, carriage and use of emergency beacons.
 - g) Through the USSF:
 1. Assist in planning, demonstrating and evaluating the effectiveness of MEOSAR;

2. Develop, and refine requirements for SAR payloads aboard future GPS satellites and support their integration;
3. As authorized, represent DoD interests in the definition of space segment performance requirements; and
4. Support on-orbit operations and maintenance of SAR payloads on GPS satellites.

USCG

- 9) The USCG shall:
- a) Use SARSAT and international Cospas-Sarsat system data to help carry out operational SAR responsibilities;
 - b) Identify SARSAT and international Cospas-Sarsat operational requirements, and assist in developing related functional and environmental specifications for these systems and their interfaces with SAR services;
 - c) Provide input on problems and solutions for SARSAT and the international Cospas-Sarsat Program;
 - d) Ensure that SAR personnel are properly informed about SARSAT and the international Program, and are well-trained in use of SARSAT data;
 - e) Help identify, prioritize, support, fund and oversee USCG-specific SARSAT R&D efforts;
 - f) Participate, as appropriate, in interagency or international exercises and evaluations;
 - g) Provide facility support for SARSAT equipment hosted at USCG facilities;
 - h) Coordinate procedures for processing received SARSAT and other distress alerting data;
 - i) Document beacon false alerts, actively work to reduce them and participate in efforts to minimize their detrimental effects;
 - j) Report known beacon problems to appropriate authorities and support suitable corrective actions;
 - k) Continue to evaluate SARSAT's effectiveness to help identify needed system improvements and potential new applications;
 - l) Coordinate regulatory requirements for certification, carriage and use of emergency beacons; and
 - m) Assist in planning, demonstrating and evaluating the effectiveness of MEOSAR.

ADDITIONAL PARTIES

- 10) Additional Parties may be added by an exchange of letters among those who are already Parties at the time and the Federal entity wishing to become an additional

Party. Such letters will specify the agreed roles, responsibilities, and financial obligations of the Party to be added.

FUNDING

- 11) The Parties to this MOA will:
- a) Fund their respective portions of the Program costs in accordance with the SARSAT Funding Implementation Plan.
 - b) Develop the SARSAT Spend Plan which will be updated annually by the PSG and cover a period of at least ten years. The SARSAT Spend Plan will guide any necessary planning and budget efforts by the Parties to ensure coordination of their respective contributions.
 - c) Carry out all activities pursuant to this MOA, subject to availability of appropriated funds. This MOA does not document the obligation of funds between the Parties. The obligation of funds by the Parties, resulting from this MOA, is subject to the availability of funds. No provision in this MOA will be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, Section 1341 of Title 31, United States Code. All Parties shall strive to ensure equitable apportionment of their contributions.
 - d) Ensure proper budget authority prior to obligation of funds;
 - e) Be responsible for their own costs associated with staff salaries, training, and other SARSAT expenses.
 - f) Be responsible for SARSAT travel unless approved for reimbursement by the PSG.
 - g) Initiate the processing of reimbursable funds instruments no later than the end of the first quarter of the fiscal year, with a goal to issue the reimbursable instruments by the end of the second quarter.

RESOLUTION OF DISAGREEMENTS

- 12) It is intended that any disagreements regarding provisions or amendments of this MOA be resolved at the operating level; however, if that cannot be done, each Party shall submit its area(s) of disagreements in writing to the other Parties for further consideration. If agreement cannot be reached thereafter within thirty days, the Parties shall refer the matter to their respective higher levels for resolution.

OTHER PROVISIONS

- 13) Nothing in this Agreement is intended to conflict with current law or regulation or the directives of the National Oceanic and Atmospheric Administration or Department of Commerce, the National Aeronautics and Space Administration, the United States Coast Guard or Department of Homeland Security, or the Department of the Air Force or Department of Defense. If a term of this Agreement is

inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this Agreement shall remain in full force and effect.

ENTRY INTO FORCE, RENEWAL, AMENDMENT AND TERMINATION

- 14) Entry into Force: This Agreement is effective upon the date of the last Party signature. It shall remain in effect for five (5) years.
- 15) Review of Agreement: This MOA will be reviewed on or around the anniversary of its effective date annually for financial impacts.
- 16) Renewal: This Agreement may be renewed in five-year intervals by written agreement of the Parties.
- 17) Amendment: This Agreement may be amended by written agreement of the Parties.
- 18) Termination: This Agreement will terminate upon execution of a superseding MOA or upon written agreement of the Parties. A party wishing to terminate its participation in the agreement must provide 180 days written notice to all Parties.
- 19) This MOA supersedes the previously signed agreement between the same Parties with the subject “Interagency Memorandum of Agreement for the United States Satellite-Aided Search and Rescue System, effective date of 6 March 2015.
- 20) Points of Contact (POCs): The following POCs will be used by the Parties to communicate matters concerning this MOA. Each Party may change its POC upon reasonable notice to the other Parties.
 - NOAA— Mr. Mark W. Turner, Direct Services Branch Chief/SARSAT Program Manager, NOAA/NESDIS Office of Satellite and Product Operations, 301-817-4446; mark.w.turner@noaa.gov; NOAA SARSAT, NSOF, E/SPO53, 1315 East West Hwy., Silver Spring, Maryland 20910
 - US Coast Guard— Mr. Richard Button, Coordination Division Chief (CG-SAR-2), 202-372-2088; richard.a.button@uscg.mil; U.S. Coast Guard Headquarters, 2703 Martin Luther King Jr. Ave SE, STOP 7516, Washington DC 20593
 - NASA— Dr. Lisa Mazzuca, NASA Search and Rescue Mission Manager, NASA Goddard Space Flight Center, 301- 286-2647; lisa.m.mazzuca@nasa.gov; 8800 Greenbelt Road, Greenbelt, MD 20771
 - Dept. of the Air Force— Mr. Ted Uchida, Deputy Director of Operations, ACC/A3-2, (757) 764-3203; ted.uchida.1@us.af.mil; 205 Dodd Blvd, Suite 101, Joint Base Langley-Eustis, VA 23665
- 21) Transferability: This MOA is not transferable except with the written consent of the Parties.
- 22) No Third Party Beneficiaries: Nothing in this MOA, express or implied, is intended to give to, or will be construed to confer upon, any person or entity, not a party, any remedy or claim under or by reason of this MOA. This MOA will be for the sole and exclusive benefit of the Parties.
- 23) Other Federal Agencies: This MOA does not bind any federal agency, other than the Parties, nor waive required compliance with any law or regulation.

For the National Oceanic and Atmospheric Administration

A handwritten signature in black ink that reads "Ben R" followed by a long horizontal line extending to the right.

6/17/21


Benjamin Friedman
Deputy Under Secretary for Operations
Performing the duties of
Under Secretary of Commerce for Oceans and Atmosphere

Date

For the National Aeronautics and Space Administration

A handwritten signature in blue ink that reads "Bill Nelson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Bill Nelson
Administrator
National Aeronautics and Space Administration

A handwritten date in blue ink that reads "6/14/2021". The numbers are clearly legible and written in a simple, slightly slanted style.

Date

For the United States Coast Guard

Handwritten signature in blue ink, appearing to read "Karl L. Schultz" with "ADM, USCG" written below it.

Karl L. Schultz
Admiral, U.S. Coast Guard
Commandant

12 MARCH 2021
Date

For the United States Department of the Air Force



John P. Roth
Acting Secretary of the Air Force

17 MAR 2021

Date