

STATEMENT OF WORK

AVIATION SAFETY REPORTING SYSTEM (ASRS) AND RELATED SYSTEMS

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National Aeronautics and Space Administration
Ames Research Center
Moffett Field, California

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I. Introduction

The National Aeronautics and Space Administration (NASA) operates and manages the Aviation Safety Reporting System (ASRS) and other safety reporting systems that are modeled to function as voluntary, independent, confidential systems in aviation, railroad transportation, and potentially other domains, such as medicine. In aviation, the mission of the ASRS since 1976 has been to acquire information concerning current and potential deficiencies and discrepancies in the operational performance of the National Airspace System and to maximize the effective use of that information to further aviation safety and system planning. The ASRS has two primary aspects: the maintenance and operation of a voluntary, independent, confidential incident reporting program and research and development using incident reports to support improvements in the performance and safety of the current and future aviation system. The ASRS functions through an Interagency Agreement with the Department of Transportation's Federal Aviation Administration (FAA) that complements the FAA's Aviation Safety Reporting Program (ASRP). The ASRS program is nationally and internationally recognized as an effective and trusted model for confidential safety reporting. As a result of this reputation, other Government agencies, private and public organizations have requested NASA's assistance in establishing new systems of confidential reporting for the purpose of improving safety.

This SOW is applicable for two systems: 1) ASRS and 2) the Confidential Close Call Reporting System (C3RS) for the Department of Transportation's Federal Railroad Administration (FRA). The C3RS was originally developed as a pilot project between the FRA and Volpe Transportation. The FRA has consulted with NASA to continue the development of the C3RS under the management of the ASRS program, which is expected to maximize the advantages of the confidential reporting system related to railroad safety. The initial stage will involve railroad yard operations through the agreements developed, approved, and signed by FRA and NASA Ames Research Center.

The NASA ASRS has gained experience in setting up and managing confidential reporting systems in domains other than aviation. In 2000, NASA ASRS created, initiated and managed the new Patient Safety Reporting System (PSRS). The PSRS was established to meet a request from the Department of Veterans Affairs (VA) and VA's National Center for Patient Safety (NCPS). The VA is not currently contributing to the PSRS, but a private consortium of hospitals and another hospital organization have requested to join the PSRS. NASA partnership agreements will be created with these medical organizations in order to provide their healthcare system's front-line personnel the opportunity to report medical safety events and issues through the confidential procedures at NASA. These will be new collaborations and currently are in the process of development. The PSRS will continue to be developed and matured throughout the life of the contract. However, until partnership agreements are completed, the activities related to PSRS will be on hold and are not part of this SOW. When the partnership agreements are completed this effort will be incorporated by a contract change order.

Other reporting systems based on the ASRS model may be proposed in the next few years. As requirements associated with these developments materialize, they shall be incorporated into this contract.

II. General Requirements

The Contractor shall operate ASRS and C3RS, and other potential reporting systems as determined.

The requirements of this Statement of Work shall address the ASRS and C3RS. The requirements to be accomplished will be coordinated through the issuance of Contract Technical Work Plans for each reporting system on an incremental basis based on the work requirements and the funding availability.

A. Facility

1. Location - The Contractor shall provide a facility (approx. 9,000 sq. ft.) within close proximity to NASA Ames Research Center, Moffett Field, California 94035. This proximity requirement is due to the amount and frequency of significant interactions between the Contractor personnel, NASA personnel, NASA programs, and facilities at NASA Ames Research Center (ARC). Examples of the required interactions include the daily pickup of mail from the official U.S. Postal Service boxes for each reporting system at the Moffett Field Post Office; the requirement to mail ID strips (SOW Section III.K) through only the NASA Ames onsite mailroom, Expert Analyst participation in many of the aviation safety research projects under study by the Human Integration & Technology Division (Code TH) at ARC; and the civil servants, specifically the NASA ASRS Program Director and Deputy Program Director that have daily duties both at ASRS and NASA ARC that requires frequent travel between the two locations.
2. Facility Requirements - The Contractor shall provide a secure office space ensuring that all sensitive information is protected. The facility shall have a functioning security system as approved in the ASRS and Related Systems Facility Security Plan (see SOW Section VIII.A). In addition, all Expert Analysts who process the reports shall have the capability to make phone calls that ensure privacy and confidentiality. Any identifying phone records shall be kept confidential, with limited access granted in accordance with the ASRS and Related Systems Facility Security Plan, and managed in accordance with Incident File Maintenance (see SOW Section III.M).

The Government shall provide the Contractor facility with secure data communications from the Contractor facility to ARC. NASA IT Security requirements will be maintained by the contractor.

The Contractor facility shall provide two on-site meeting rooms for simultaneous, small (6 person) and large (15 person) meetings. These rooms shall have secure access for staff, visitors, and NASA managers.

The Contractor shall be prepared for visits from the appointed members of the NASA ASRS Advisory Committee (ASRS AC) Security Group for periodic unannounced security evaluations. Currently, the ASRS AC Security Group represents the confidentiality interests of pilots, air traffic controllers, cabin crews, and maintenance reporters.

3. Visitors - Due to the unique and successful operation of the ASRS over 34 years, NASA often sponsors both international, domestic, government and non-governmental visitors to study the operation of ASRS. The Contractor shall provide a courtesy work area, in compliance with the ASRS and Related Systems Facility Security Plan for these occasional NASA-approved visitors. In accordance with the Contractor's ASRS and Related Systems Facility Security Plan (see SOW section VIII.A), the Contractor shall provide controlled accessibility to visitors and maintain continuous on-site records of the visitors.
4. Liaison Offices - The Contractor shall provide individual, secure office spaces for two NASA personnel directly related to the ASRS and other related programs (i.e., Program Director and Deputy Program Director). This office space shall permit unrestricted access to the Contractor facility. The office space provided to the NASA personnel shall be equal to the Contractor personnel performing equivalent management tasks. Unless otherwise supplied by the Government, the Contractor shall provide telephone service and office supplies for NASA personnel. NASA's reputation and responsibility for the services provided by these highly visible programs requires continuous liaison in the daily operation of the programs.

B. Information Technology (IT)

1. Server Requirements - The Contractor shall maintain all Government-provided system databases on a Government-provided server(s). Currently, the ASRS DataBase OnLine (DBOL) is using Oracle 10G. The Analyst Workbench electronic processing tool is using Oracle 9i. An inventory of Government-provided servers and computers is included in the Government Furnished Property (GFP) List in contract Section J.1(a)4.
2. COTS Software – Some COTS software licenses have already been purchased and will be available to the contractor at no cost. Software licenses being considered for transfer to the new contractor include Microsoft Office, Microsoft Access, Microsoft Visio, Adobe Creative Suite, Acrobat, Dreamweaver, InDesign, Photoshop, Illustrator, FileMakerPro, and Oracle Web Query. NASA will provide Brio for internal database queries. Web development is using: Adobe Creative Suite, Microsoft Visual Studio 2005, and various open source development tools. For Topical Research that requires additional information to the original report for a special study, Checkbox “Ultimate Survey” software is currently in use for these Supplemental Question efforts. NASA will notify the Contractor when upgraded versions or additional software requirements are needed. The Contractor shall provide supplemental COTS software required to operate the ASRS and related systems. Such software shall be purchased in the name of the Government. The Contractor shall notify NASA when it identifies other upgrades or software requirements before purchase.
3. Custom Software - The Contractor shall maintain custom software provided by the Government to facilitate operation and maintenance of the reporting system processes and databases (e.g., Secure Electronic Report Submission, Analyst Workbench, Multiple Report Matching, and other related components).
4. IT Security - The Contractor shall provide a secure environment for all computer hardware, software, and networks as specified in the ASRS and Related Systems IT Security Management Plan. The IT systems shall meet NASA and the Federal Government requirements through its Certification and Accreditation process and others as required. (contract Section I.6, NFS 1852.204-76, Security Requirements for Unclassified Information Technology Resources)
5. Extensions and Enhancements - The Contractor shall propose, obtain NASA approval, and perform tasks related to the modernization and enhancement of the reporting systems in order to produce long-term efficiencies in report processing and to make the ASRS and other databases appropriately accessible and integrated with other safety resources specific to area domain (aviation, railroad, medicine, etc.). These enhancements include on-going improvements to the current capability and error-free access to the secure electronic submission of reports, electronic information sharing, automated text search, and data management analysis software tools (e.g., Analysts Workbench software). ASRS is receiving reports from airline Aviation Safety Action Programs (ASAP). Currently, over 140 ASAP programs from 56 airlines are submitting safety reports to ASRS through secure electronic data transmission protocols developed by NASA and paper reports through the official ASRS P.O. Box. Efficient processing, de-identification and report management is a major requirement of this work. Several ASAP systems are currently evolving from paper submission to electronic data transmission between the airline programs and ASRS. The Contractor will assist in streamlining these airline ASAP transitions. Additionally, ASRS is receiving voluntarily submitted electronic reports from Air Traffic Safety Action Programs (ATSAP) that are being fully incorporated into ASRS report processing.

C. Personnel

In order to preserve the integrity and independence of the ASRS and Related Systems program, neither staff members nor their spouses shall be concurrently employed by any associated domain specific agencies, organizations, or businesses that are related to the reporting systems in order to avoid a conflict of interest. Any potential conflicts of interest will be reviewed by the NASA ASRS Program Director. NASA will individually approve these exceptions on a case-by-case basis. In addition, all ASRS and Related Systems staff members shall sign non-disclosure agreements to protect the confidentiality of all reporting systems' data and information. All subcontract personnel and consultants hired to perform ASRS work shall also be required to sign non-disclosure agreements. It is the responsibility of the Contractor to maintain these agreements and make them available to NASA management and the COTR upon request. All contractor personnel shall be HSPD-12 approved and background checks completed in order to obtain an official NASA contractor badge (in accordance with Section I.2 Personal Identity Verification of Contractor Personnel, FAR 52.204-9).

1. ASRS Program Manager, Project Managers and Deputy Project Managers - The Contractor shall provide an ASRS Program Manager for the overall ASRS and Related Systems contract. The Contractor shall provide a Project Manager for each related system that is operational. The ASRS Program Manager will also function as the ASRS Project Manager. Each reporting system may require a Deputy Project Manager for each specific system (i.e., ASRS and C3RS).

The ASRS Program Manager/Project Manager shall be expected to have at least 10 years experience in aviation operations with experience in reporting systems, contract management, large multi-level operations management and general knowledge of IT development. The ASRS Program Manager shall provide overall contract management of the Contractor's efforts and shall provide a responsible interface with the Government for ASRS, C3RS, the future PSRS work, and other domain systems, if applicable.

The C3RS Project Manager and/or Deputy Project Manager shall be expected to have at least 10 years of experience in railroad operations (preferably in Class 1 rail carrier operations) and include engineer and/or conductor experience.

The Project Managers and Deputy Project Managers for each operational system must have a thorough understanding of safety issues within each of their domains. Project Managers and Deputy Project Managers shall be expected to have the skills and experience required in their specific domains (aviation, railroad, etc.) to credibly represent the reporting systems to Government and industry organizations.

The ASRS Program Manager and all Project Managers positions are considered Key Personnel for this contract, as well as Lead IT Specialist and any Business Manager (if assigned by Contractor).

2. Contractor Expert Analysts – The Contractor shall provide Expert Analyst(s) for each operational reporting system. The Contractor shall ensure that the Expert Analysts for each reporting system have a minimum of 10 years of professional operations experience within the specific domain. The Contractor shall maintain within its facility a resume for each of its analysts and professional staff that may be reviewed by the NASA Program Director, Contracting Officer (CO) and/or the Contracting Officer's Technical Representative (COTR).
 - a. ASRS Expert Analysts – Experience in the aviation operational areas that shall be supported are the following, at a minimum:
 - Commercial Airline (14 CFR Part 121 and Part 135)
 - General Aviation (14 CFR Part 91, private, multi-engine, and corporate)

Air Traffic Control (Tower, TRACON, ARTCC)
Aviation Maintenance (14 CFR Part 91, 135, 121 operations)
Aircraft Cabin Operations

The qualifications of the ASRS Expert Analysts shall include, but not be limited to, the following: certificated pilots (representing airline transport pilots, commercial, and general aviation); FAA certified air traffic controllers (representing ARTCC, TRACON, and Tower); licensed maintenance technicians; and professional flight attendants. The number and types of Expert Analysts depend on numbers of reports from those professions and may change throughout the contract. The ASRS Expert Analysts shall be familiar with the documentation and regulations addressing the Aviation Safety Reporting System (Advisory Circular 00-46D & 14 CFR 91.25), all current Federal Aviation Regulations, maintenance regulations (14 CFR 121.369, 14 CFR 65.71-95, 14 CFR 101-107, Subpart D – Repairman, Aircraft Maintenance Manual Requirements), and FAA Controller Policy, as applicable. Currently ASRS is addressed in N JO 7210.56C for air traffic controllers. An ASRS Alert Message Coordinator(s) shall be assigned from the staff of ASRS Expert Analysts.

b. C3RS Expert Analysts – The Contractor shall provide a C3RS Project Manager with the appropriate qualifications described in C.1 above and any required C3RS Expert Analysts. The Contractor shall assume that the C3RS will be fully operational at the beginning of the contract with an anticipated low volume of reports that will grow over the time of the contract. In the railroad environment of the C3RS, the Contractor shall provide required Expert Analysts with at least 10 years of experience suitable to evaluate railroad incidents in railroad operational areas, like railroad yard, interstate, municipal and across U.S. border railroad environments. The qualifications of the C3RS Expert Analysts shall initially be most relevant to railroad yard operations, the first focus of reporting for the C3RS. The C3RS Project Manager and Expert Analyst shall be fully knowledgeable about documentation and regulations of the FRA and railroad carriers, professional and labor organization structures, as applicable.

c. PSRS Expert Analysts – The requirement for these Expert Analysts will be defined and incorporated into the contract when final agreements are approved and signed by NASA and medical partners.

3. Research and Publications Personnel - The Contractor shall provide personnel with skills in research methodology, basic statistics, writing, editing, desktop publication, computer graphics, and presentation design, including multi-media.
4. Information Technology Personnel - The Contractor shall provide one Lead IT Specialist and other personnel with knowledge and capabilities in the areas of very large database management, computer sciences, information technology, statistical analyses, IT security, and database exploration. The Contractor shall provide services encompassing a variety of technical functions. These shall include internet/intranet site maintenance, network troubleshooting, database coordination, system security checks, maintenance of a reference library, coordination of support services, coordination with NASA Chief Information Officer (CIO) and IT Security offices, and the establishment of cross-platform accessibility across Macintosh and Windows operating systems with ORACLE software.
5. Business and Administrative Personnel – The Contractor shall provide business and administrative personnel to support the operations of the ASRS and C3RS.

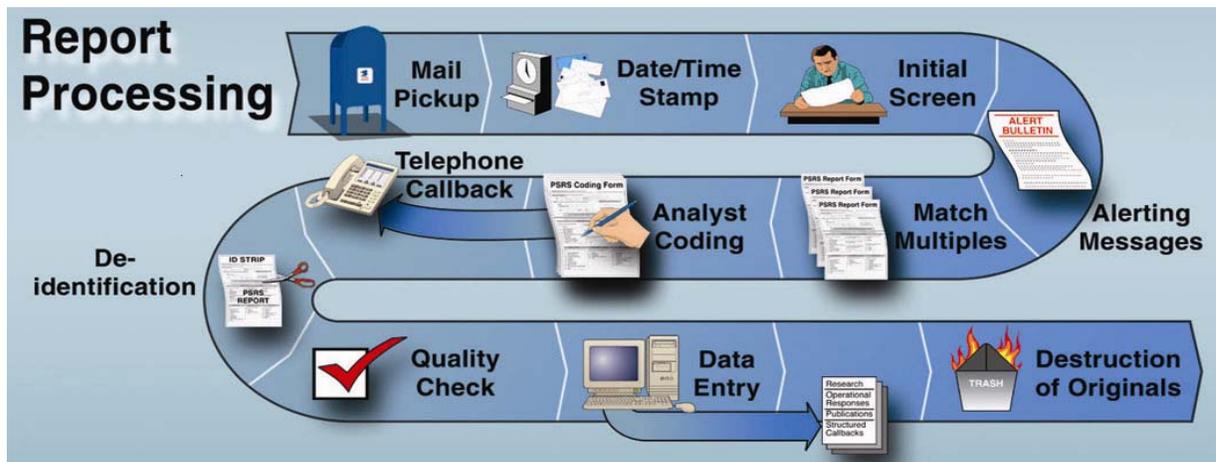
The contractor personnel and analysts shall perform the tasks identified in SOW sections III. through V. (ASRS) and section VI. (C3RS).

III. Operation and Maintenance of ASRS

The ASRS is a voluntary process wherein pilots, air traffic controllers, dispatchers, cabin crew, mechanics, and any other individual associated with the operation of the aviation system may report aviation incidents or potential safety hazards. This is the preferred model for confidential reporting that is replicated for the new reporting systems in railroad and future medical contributions. This model of a confidential safety reporting system includes the processing of reports, specific de-identification protocols to protect the identity of the person reporting, identification of safety hazards, analysis of data (qualitative and quantitative), operation and maintenance of large databases, and presentation of findings based on the accumulated safety data and information.

Confidentiality of the reporter is the most critical element of each system's success. The Contractor shall, at all times during the performance of this contract, protect and preserve the confidentiality of the reporter and any third party references (e.g., airline company, railroad company, names of individuals involved, etc.). For aviation, legal requirements are described in the original Federal Register Notices, FAA/NASA Interagency Agreements and Memorandum of Agreements (MOAs), FAA Advisory Circular 00-46D and 14 CFR 91.25. The FAA Advisory Circular 00-46D is available on the ASRS website <http://asrs.arc.nasa.gov> under Program Information / Immunity Policy.

The simplified production flow chart of the current report processing methodology is presented below. The processes apply to all of the reporting systems. The SOW will address each system separately and in the instances where a process may differ between the reporting systems, these will be noted in the respective sections addressing ASRS and C3RS. Therefore, the SOW will primarily describe the requirements of the ASRS. These requirements will directly apply with minor differences to the C3RS and future reporting systems.



- A. **ASRS Reporting Forms** - The ASRS incident reports are submitted by pilots, air traffic controllers, maintenance technicians, flight attendants, etc., on NASA Forms ARC 277 A-D. Although the NASA Forms are not mandatory for submission and reports may be submitted in alternative forms (e.g., letters), the majority of reports are submitted on these forms, either through the US mail or by electronic delivery via the ASRS website or direct secure transmission from airline ASAP programs. In some instances, the report submissions from airline ASAP or air traffic controller ATSAP are provided through unique formats used by these programs and subsequently require mapping to ASRS fields and data structures. The reporting forms can be accessed electronically at the ASRS website, <http://asrs.arc.nasa.gov>. However, the postage-paid, paper forms are provided by ASRS or found in some FAA Facilities. The Contractor shall provide reporting forms inventory,

tracking of report form distribution, and accomplish restocking requests. The Government provides printing and mailing of paper reporting forms.

- B. ASRS Mail Pickup of Reporting Forms** - The Contractor shall obtain incident reports on a daily working day (WD) basis via a secure method from the ASRS Post Office Box, as defined in the Contractor's ASRS and Related Systems Facility Security Plan. The annual fee for the Post Office box located at the Moffett Field Post Office, California 94035 is currently \$26. Weekends and holiday mail pick-up is excluded. These reports are entered into the ASRS Analyst Workbench for processing. The number of paper reports submitted to the ASRS in 2009 was 9,971 out of the 48,986 annual total.
- C. ASRS Receipt of Secure Electronic Reporting** – The Contractor shall obtain electronic reports from an encrypted enclave on NASA ARC and internal servers. These reports shall be obtained each WD; excluding weekends and holidays, and entered into the automated ASRS Analyst Workbench for processing. The number of electronic reports submitted to the ASRS in 2009 was 39,015 out of the 48,986 annual total.
- D. ASRS Date Stamping of ID Strips** - Upon receipt, the Contractor shall date stamp each report with the date of receipt on the ID Strip in the upper right-hand corner. This top portion of the reporting form will be severed and returned as proof of submission to the address provided by the person submitting the report. This will remove the reporter's name permanently from the report. Internally, the date of receipt is recorded with the ACN number assigned to that report. When available, an additional date is recorded, which is the date when the person reporting either mailed the report or sent it electronically. This additional date will be recorded with the Accession Number (ACN). An automated date stamp machine will do the date stamping of paper ID Strips. The date stamping of paper ID Strips for electronically submitted reports will be an electronic facsimile date stamp that has been created uniquely for NASA ASRS. The Government will provide both paper and electronic date stamp to the Contractor. The ASRS date stamp emblem is unique to ASRS and identifiable for FAA inspection and NTSB Administrative Law Judge (ALJ) verification as proof of timely submission.
- E. ASRS Internal Report Tracking System** - The Contractor shall maintain a tracking system that provides the current status of each incident report as it is processed through the system. This tracking system shall meet the following objectives:
1. Permit identification of each reviewer and handler throughout the processing stages,
 2. Continue report numbering in succession from the previous year's reports utilizing the Accession Number (ACN) system previously established, and
 3. Maintain the confidentiality of the person reporting throughout report processing, including no numerical identification annotated on the ID strip or any other identity material maintained. The Accession Number (ACN) is never matched or provided to the person reporting. The Contractor shall be responsible for reporter and third party confidentiality. Any conflict or question concerning confidentiality shall be provided to the NASA ASRS Program Director and/or Deputy Program Director for resolution within 2 hours of discovery.
- F. ASRS Incident Report Screening and Classification** - The Contractor shall read and evaluate each report for hazard identification and classification into defined, predetermined processing and coding categories. This process requires expert operational judgment and decision-making skills. The Contractor shall ensure that two ASRS Expert Analysts with experience in the relevant functional area of the report content accomplish this screening independently. The Contractor shall complete the screening of each incident report no more than three working days after Post Office Box or electronic receipt of the incident report. The

screening and classification processes for ASRS reports are described in the following paragraphs:

1. ASRS Report Classifications - The Contractor Expert Analysts shall screen each incident report for classification into the following categories that are described below:

a. Full Form - Reports selected for Full Form processing are input into the ASRS Database following analysis by ASRS Expert Analysts. Full Form processing yields a full and lengthy evaluation that captures the safety information provided in the report and is coded into approximately 1,200 coding fields. The ASRS Database Fields are available for review on ASRS website under DBOL feature. The percentage of Full Form reports to be analyzed, processed and entered into the ASRS Database shall be determined by a target volume formulated by NASA, which at this time is approximately 20% of the total reports received per year. The Government formula for determining the target volume will be provided to the Contractor. It is a Government goal to increase this percentage with efficiencies in processing. In 2009, the total number of ASRS reports received was 48,986. The types of reports that are processed for Full Form analysis are:

i. Mandatory – 100% of the incident reports describing significant events listed in the Analyst Workbench software (i.e., Near Mid-Air Collision, Ground Conflict Critical, Controlled Flight Toward Terrain, Loss of Aircraft Control, and Aircraft Equipment Problem Critical). This list was agreed upon between NASA and the FAA to be de-identified and processed to the ASRS Database. These fields have been collected 100% since the beginning of the ASRS.

ii. Alert Messages: Alert Bulletins and For Your Information Notices - Any report released as an Alert Message shall be included in Full Form processing. These reports describe significant aviation hazards, may have accident prevention potential, or may describe lesser severity incidents that may be appropriate as safety notices. The Contractor staff of ASRS Expert Analysts identifies these reports during screening. (SOW Section III.G.)

iii. Special Studies/Emerging Issues – Any report that is identified as addressing subjects of special study or items representing emerging trends in the aviation community are processed as Full Form reports as directed by NASA Program Director. The list of special studies and emerging issues is a dynamic list based on safety focuses that may arise from requests from FAA and industry, as well as ASRS identified content. This set also includes special topics of safety concerns identified by NASA in consultation with the FAA, National Transportation Safety Board (NTSB), and industry groups and reports labeled for selected studies (e.g., Structured Callback, Quick Responses, and Topical Research). Currently, the list of special topics that are being captured are aviation issues such as Unmanned Aerial Vehicles (UAV), Very Light Jets (VLJ), and Electronic Flight Bag (EFB) reports. Additionally, there is a Structured Callback study progressing on Wake Turbulence events.

iv. Discretionary - Incident reports which are of educational and illustrative value can be chosen by ASRS Expert Analysts for Full Form processing.

(NOTE: The above four classifications combine to obtain the target Full Form processing volume for any time period. As mentioned above, the rate is currently 20% of all reports received annually.)

b. Criminal - Reports describing events that would be codified under Title 18 of the United States Code of Federal Regulations as criminal shall be given immediately to

the NASA ASRS Program Director or Deputy Program Director and are solely excluded from inclusion in the ASRS as described in FAA Advisory Circular 00-46D.

c. Accident - An incident report presumed to be an “accident” shall be verified by comparison to the NTSB on-line accident files (<http://www.nts.gov/aviation/aviation.htm>). If the event is located in the NTSB online list as a preliminary or final investigation, the report shall be given to the NASA ASRS Program Director or Deputy Program Director. If it is not found in the NTSB online files and it is presumed by the ASRS Expert Analysts that the report describes an accident, the report shall be given to the NASA ASRS Program Director or Deputy Program Director within 5 working days of identification. Any other reports not determined to be accidents shall be returned for continued processing.

d. Screen Only - The Contractor shall classify all reports not included in one or more of the above categories as Screen Only. After return of the reporters' ID strips, the Contractor shall retain all reports classified as Screen Only for a period of time, as specified in government record retention schedule. (The disposition of all original reports will be described in Incident File Maintenance (SOW Section III.M).

- G. ASRS Alert Messages – Alert Bulletins and FYI Notices** - There are two potential categories of Alert Messages: Alert Bulletin (AB) or For Your Information (FYI). Additionally, either category of Alert Message may be selected for presentation at the monthly NASA ASRS/ FAA Telecon. The ASRS Alert Message Coordinator determines from the screened reports tagged as potential alerts whether a report is an AB, FYI, and/or Telecon. This process requires expert operational judgment and decision-making skills. The AB category is reserved for those events determined to be potentially significant safety hazards. The FYI category is for those events determined to be of a lesser severity, but important as safety information to be distributed to those parties involved in a potential solution. The AB and FYI categories are mutually exclusive, but can overlap with NASA/FAA Telecon items. One report or a collection of reports describing a safety issue of concern can trigger an Alert Message.

After initial selection from the screening process, the ASRS Alert Message Coordinator performs a preliminary evaluation to determine if the report warrants an alert and if additional information is needed to evaluate the incident report. If it is determined that the report shall be developed as an AB or FYI, the ASRS Alert Message Coordinator shall refer the report immediately to the appropriate ASRS Expert Analyst for analysis and possible contact with the reporter for confirmation and ancillary information. Any “time critical” reports, as determined by the ASRS Expert Analysts (i.e., recommended processing in less than 30 calendar days due to safety content), shall be given to the NASA ASRS Program Director or Deputy Program Director within 24 hours of identification. Reports describing events that would be classified as accidents under the jurisdiction of Subparts A & B, NTSB 830.5 (49 CFR 830.5) and contained in the Aeronautical Information Manual (AIM) descriptions shall be given to the NASA ASRS Program Director or Deputy Program Director for disposition. No efforts shall be made to gather additional information from sources other than the incident reporter that may identify any aspect of the report that could compromise the reporter's identity.

Any incident, if not identified in the screening process, can be brought into the Alert Message process at any stage of analysis. This report is tracked as a “Walk-In” Alert Message. The reasons that any potential report may be determined to be inappropriate as an Alert Message shall be documented in a status log for future reference.

- H. ASRS Multiple Report Matching** - The Contractor shall match all submitted reports on the same incident and combine them to make an incident record for further analysis and processing. The Government will provide the Multiple Report Matching software program currently used to accomplish this requirement. It is included in the current ASRS Analyst Workbench. The Contractor shall capture the relevant information required by the software

necessary to complete the matching process. Typically, 20% of ASRS reports received can be matched (e.g., a Captain report matched with a First Officer report on the same event). In rare cases, several reports will be received on the same incident from the flight crew, cabin crew, mechanic, and air traffic control. Once these separate reports are matched, they become an incident record. Incident records are the completed files entered into the ASRS Database. Retention of these limited data fields of the Multiple Report Matching data is captured for 100% of all reports and is included in the internal ASRS Screening Dataset that can be used to describe features of the total report intake.

- I. **ASRS Incident Report Analysis** - Following report screening and multiple report matching, the ASRS Expert Analysts shall analyze the incident report/record, capture the data provided in the report(s), summarize information gathered in their analysis, and provide the analyst's evaluation. The analyzed report shall be coded into the existing ASRS Database coding fields. This process requires expert operational judgment and decision-making skills. During the process of analysis, the analysts shall consult all relevant references (e.g., Jeppesen Charts, aircraft manuals, etc). The analyst reference material is largely available through the on-line ASRS Analyst Workbench software; however, some reference material requires a monthly or annual fee that is the responsibility of the Contractor (See C.3 Analyst Reference Material). The ASRS Expert Analysts shall perform a telephone callback to the incident reporter to obtain any additional information or status of the incident, as necessary. The Contractor shall assure that the conduct of telephone calls to incident reporters follows the procedures required by the approved Telephone Conduct Plan (SOW Section VIII.A). If the reporter is not available, a collect call to the analyst is made available to the incident reporter. Typically, the rate of telephone callbacks for the ASRS is less than 10% of all Full Form reports.

- J. **ASRS De-Identification of Data** - Database reports shall be de-identified by removing any information that could lead to the identification of the incident reporter (e.g., reporter name, any third party references, airline name, flight numbers, incriminating location identification, proper names, potential identification from aircraft make/model classification, etc.). In addition to the de-identification of the incident reporter, the FAA Advisory Circular 00-46D requires de-identification of any third party references. Information such as location and/or aircraft make/model is usually retained when relevant to the understanding of the incident occurrence unless this combination would identify the airline and thus, potentially the reporter. Thus, there are exceptions needed to protect reporter identity and still capture safety information. These exceptions shall be discussed with the NASA ASRS Program Director or Deputy Program Director when appropriate. Proper de-identification to protect the reporter is the first priority of the ASRS. On all reports, regardless of processing classification, the identification information (top ID portion of the NASA form with the NASA date stamp) is returned to the person who reported the incident as determined by the address provided by the reporter. Following the ID strip decap (i.e., physical removal of the top portion of the reporting form) and de-identification of the contents of the report, the processed data shall be prepared for database entry.

- K. **ASRS ID Strip Return** - The Contractor shall return the date stamped ID strip to the reporter after analysis is completed. The Contractor shall return the ID strip within the following time standards, unless requested sooner by the reporter and concurrence is obtained from the NASA ASRS Program Director or Deputy Program Director, as appropriate:

| <u>Type of Reports</u> | <u>Return No Sooner Than</u> | <u>Return No Later Than</u> |
|------------------------|------------------------------|-----------------------------|
| Screened only | 14 WD days | 21 WD days |
| Full reports | 30 WD days | 60 WD days |
| Alert reports | 30 WD days | 60 WD days |

Deviations from these standards shall be discussed with NASA ASRS Program Director or Deputy Program Director. If a reporter contacts ASRS for return of their ID strip, every

attempt shall be made to locate their original report. Once the person who is requesting the ID strip is verified to be the reporter of the incident report by obtaining from the person several descriptors of the report, as addressed in the ASRS and Related Systems Facility Security Plan, the ID strip shall be returned to the reporter at the address provided on the ID strip. No alternate address shall be used. Permission shall be obtained from the reporter to keep their contact information temporarily for any remaining processing steps, at which time his/her name identification would be removed. Only under these specific conditions is retention of contact information temporarily allowed. No photocopy of an ID strip is allowed.

The Contractor shall accomplish the ID strip mailing through the NASA Ames Research Center Mailroom (Building 255) using NASA-insignia window envelopes showing the reporter's address from the ID strip. The Government is responsible for postage and handling. Included with the ID strip is the NASA ASRS Program Director's cover letter, copy of ASRS Operating Rules, and information concerning *CALLBACK* newsletter E-Notification sign up.

The Contractor shall retain all original reports, tracking records, and other processing records for specified periods of time to comply with NASA's direction related to government record retention schedules for ASRS and Related Systems through secure procedures.

- L. **ASRS Database Entry** - The Contractor shall enter the ACN, coding fields, narrative, analysis, and other appropriate information from each report processed as an incident record. The Contractor shall assure accuracy, completeness, and quality of data entry. The overall standards of database records shall assure that the database is current to the following standard for database entry of de-identified incident records as follows:

No sooner than 60 calendar days from date of receipt and no later than 90 calendar days from date of receipt.

Therefore, data would be available for Search Requests, released by formal request, and/or Quick Response purposes only after the above criteria are met. The quality of the database records shall be maintained at 95% accuracy for content, coding, and keying errors. The Contractor's Quality Assurance Plan (SOW Section VIII.A) shall address these requirements.

- M. **ASRS Incident File Maintenance** - The Contractor shall retain and maintain all original incident reports, attached graphics, phone records, and any other identifying logs for a period of time as specified by NASA to be compliant with government record retention schedules for ASRS and Related Systems. Report tracking records describing which staff members had contact with the report shall be maintained throughout the length of the contract and undetermined future. The Multiple Report Matching (MRM) files shall be retained normally no longer than 60 calendar days for the purpose of matching. Following the MRM process in the ASRS Analyst Workbench and a final de-identification, a limited set of data fields for every ASRS report shall be retained for use in the internal ASRS Screening Dataset. The ASRS Alert Message log shall be retained throughout the contract and in compliance with the government record retention schedule. The Contractor shall maintain these files in a secure area at the Contractor's facility or suitable secure, off-site location approved by NASA. The Contractor shall also maintain the files in a manner such that individual reports can be accessed and reviewed readily if necessary. The Contractor shall provide limited access to these maintained files so that only personnel authorized in accordance with the Contractor's ASRS and Related Systems Facility Security Plan (SOW Section VIII.A) are granted access. At the end of the appropriate retention periods, the Contractor shall box report materials, seal the boxes, and contact NASA Ames Research Center Document Control for pick-up and destruction.

The government record retention schedule applies to electronic records as well. At the end of the appropriate retention periods, the Contractor shall completely remove electronic digital files from servers and other computers to assure compliance with record retention policies.

N. ASRS Data Storage, Database Security, and Retrieval - The Contractor shall provide the capability necessary for the uninterrupted secure process for data storage and a database system for selected report products. The expected capability requirement is to provide for data input, data storage, and rapid retrieval of processed data. The system shall be capable of providing the performance of routine and special searches of the processed incident data. The Contractor shall configure the system utilizing the Government-provided software in a manner that shall permit direct access to the incident database by the ASRS Database Online (DBOL) service located on the ASRS website. The Contractor shall be required to send a properly formatted copy of the ASRS Database to those organizations and individuals authorized by NASA by schedules previously established. For example, the FAA's Aviation Safety Information Analysis System (ASIAS) receives an electronic copy of the public ASRS Database on a weekly basis. The Contractor shall maintain the ASRS report database, internal ASRS incident report screening dataset, and other appropriate data collections for the length of the contract and provide this data and information derived from data at the completion of the contract in a form consistent with the operability specified in this document.

1. The Contractor shall be solely responsible for the security of all materials entrusted to it. The Contractor shall address, as part of the ASRS and Related Systems IT Security Management Plan (SOW Section VIII.A), a description of data and information security requirements, which shall ensure the integrity of the databases and other information. The database elements of the ASRS and Related Systems IT Security Management Plan shall follow the format and address the elements as described in the Office of Management and Budget (OMB) Circular No. A-130, Appendix III and identify how they shall meet each Protection Category described in the NASA Automated Information Security (AIS) Handbook (NHB 2410.9A), Protective Measure Baseline Considerations, Chapter 4, Exhibit 403c, for Sensitivity/Criticality Level 2.

In addition to data security provisions mentioned above, the Contractor shall not release or disseminate any information regarding ASRS without the expressed written approval of the NASA ASRS Program Director or Deputy Program Director.

2. The Contractor shall adequately back-up all data every 24 hours. The back-up medium shall be located at a secure location remote from the main Contractor facility to avoid any damage that may result from fire, earthquake, flood, or other disasters. This shall be addressed in the Contractor's Contingency Plan (SOW Section VIII.A).

IV. ASRS Research and Products

The Contractor shall prepare research and operational reports in response to requests from NASA and, with NASA's authorization, from the FAA and other users of the ASRS data. These requests shall include, but not be limited to, scientific and technical reports, safety newsletters, an annual report describing program operations, requests for specific information from the ASRS de-identified databases, and informative reports and articles for use in safety and other educational programs. The Contractor in consultation with NASA shall formulate report formats and mechanisms for dissemination.

A. ASRS Search Requests - The Contractor shall receive database search requests for routine and special studies of the ASRS from a variety of requesters, including FAA, NASA, NTSB, aviation organizations, etc. The Contractor shall perform ASRS Database computerized searches in response to these requests after consultation with the NASA ASRS Program Director or Deputy Program Director. The data available for such requests shall include the data received and processed under this contract as well as the data received prior to this contract. The current ASRS Database includes data from 1986. The data processed and stored prior to 1986 is in NASA's possession, but direct access is not possible due to format

incompatibilities. For the ASRS, the Contractor shall submit the data searches that have been quality checked for accuracy to the NASA ASRS Program Director or Deputy Program Director within 10 calendar days of the request. Upon approval, the Contractor shall deliver to the requester the requested data within 2 weeks or less from the date of request. If a shorter period of time is needed to meet the request, NASA approval shall precede any release of the data information. The requested data is usually emailed in an Adobe PDF format, but may be provided on computer disk, or printed and bound for mailing by special request.

1. External – All external requests for data shall be forwarded to the NASA ASRS Program Director or Deputy Program Director. These requests may be received from the ASRS website “Contact Us” feature, email, letters, or via telephone. If at any time a Freedom of Information Act (FOIA) request is received, it shall be forwarded to NASA ASRS Program Director or Deputy Program Director.
2. Internal – All requests for data originating within the ASRS office are included in this category. These may be in conjunction with special studies, alert messages, presentation material development, or publication preparation.

B. ASRS Quick Responses - The Contractor shall receive requests for special studies of data. All such requests shall be presented to the NASA ASRS Program Director or Deputy Program Director and subsequently Quick Response parameters communicated to the Contractor. The Contractor shall design and perform analytic studies in response to these requests. These requests may be larger efforts than a database search request and are typically limited to the FAA, NTSB, Congress, NASA, etc. These requests may be large or small in scope and vary in style and format. These Quick Response efforts are individually tailored to the requester needs. The data available for such studies shall include that contained in the ASRS Database.

C. ASRS Topical Research - The Government will make periodic requests to the Contractor for research on specific topics. These topics are determined by agreements between NASA ASRS and others, including FAA, NTSB, NASA, and aviation organizations. These requests may require additional effort that might include ASRS Structured Callbacks, Supplemental Question Sets queries, and other research oriented methodologies. Requirements and deliverables for these projects will be described in Contract Technical Work Plans.

V. ASRS Program Deliverables

ASRS Program Deliverables include a variety of scheduled and unscheduled meetings, reports, products, and publications with various time limits and due dates. The Contractor shall provide the appropriate personnel to write, format, edit, and produce these deliverables and publications. The Contractor shall provide draft presentations, reports, and material for publication to the NASA ASRS Program Director or Deputy Program Director for review and approval prior to release. The Contractor shall provide an Editor to ensure continuity for publications such as the *CALLBACK* newsletter. All presentations of ASRS information and data must be submitted through required NASA processes, including ARC 310 (Review and Authorization Record), NASA Form 1676A (NASA Scientific and Technical Document Availability Authorization) and prior travel approvals by NASA ASRS Program Director or Deputy Program Director.

A. ASRS Meetings and Teleconferences

1. Quarterly Program Briefings – The Contractor shall brief the Government quarterly on the progress of ASRS. The meeting will be held at the Contractor’s facilities and Contractor will staff these meetings with the Contractor Program Manager and appropriate staff, as necessary, to address relevant agenda items.
Timeline: The Contractor shall provide the Government a schedule on an annual basis and the meeting agenda at a minimum of one day prior to the scheduled briefings.

2. ASRS/FAA Teleconferences – The Contractor shall participate in monthly telecons with the FAA. The agenda for this telecon is written by the Contractor and approved by NASA ASRS Program Director or Deputy Program Director. The Contractor's ASRS Alert Message Coordinator and appropriate ASRS Expert Analysts shall attend the telecon to present and address relevant agenda items. The items to be included in the monthly telecon with FAA and other interested parties are determined by the Contractor Program Manager, ASRS Alert Message Coordinator, and the NASA ASRS Program Director or Deputy Program Director. The Contractor shall select incident items that are most effectively addressed by the FAA or could involve the FAA determine the telecon agenda. Typically, the telecons are 1 hour in length and are held the first Thursday of every month at 11:00 AM (Pacific) from the Contractor's facility using a web connection capability. Currently, the Contractor has provided this capability through a third party vendor that allows PowerPoint display of slides with interaction features. The voice capability is provided through a NASA toll-free number. Four to six items of fully de-identified reports are typically addressed. The telecon agenda includes information updates since the last telecon. The minutes from the last telecon are included in a complete package sent to the FAA and other recipients. .

Timeline: The Contractor shall submit the agenda to the NASA ASRS Program Director or Deputy Program Director for approval no later than 7 calendar days prior to the meeting. The Contractor subsequently shall send the approved telecon package via email to the FAA and other interested parties. This telecon package includes the agenda, de-identified reports of agenda items, and minutes of the last telecon.

3. ASRS Advisory Committee Meetings – The Contractor shall provide staff and meeting materials for the NASA ASRS Advisory Committee meetings. This is a Committee being reinstated under NASA Headquarters Advisory Committees that function under the Federal Advisory Committee Act (FACA). These meetings typically occur twice a year, generally in the spring and the fall. The meetings are located within the U.S., often in Washington DC. The Contractor's support shall include the Contractor's ASRS Program Manager, recorder, and additional staff, as needed to address relevant agenda items.

Timeline: NASA shall submit the agenda and guidelines for the preparation of meeting materials to the Contractor no later than two weeks prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting date. The Contractor shall record and provide draft minutes of the meeting to NASA no later than two weeks following the meeting. The Contractor shall provide meeting planning and timely notification of meeting participants per NASA direction.

4. FAA Semi-Annual Meetings – The Contractor shall provide staff and meeting materials for the NASA/FAA semi-annual meetings. The meetings may be located at NASA Ames Research Center, Washington DC or coincidental to other programmatic meetings. The Contractor's support shall include the Contractor's ASRS Program Manager, as appropriate, and additional staff, as needed, to address relevant agenda items.

Timeline: NASA will submit an agenda to the Contractor two weeks prior to the meeting. NASA will provide guidelines for the preparation of meeting materials to the Contractor no later than seven calendar days prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting. The Contractor shall record and provide draft minutes of the meetings to NASA no later than two weeks following the meetings.

5. International Confidential Aviation Safety Systems (ICASS) Meetings – The Contractor shall provide staff and meeting materials for the ICASS meetings as specified by NASA ASRS Program Director. When the ASRS is not the meeting host, the Contractor shall

provide meeting materials as requested and may be requested to travel internationally to the meeting site. When the ASRS is the host of this meeting (approximately once every 3 years), the Contractor's support shall include the participation of the Contractor's ASRS Program Manager and additional staff, as needed, to address relevant agenda items and meeting requirements. The Contractor shall assist NASA in hosting this international meeting.

Timeline: For the ASRS-hosted meetings, the Contractor shall provide meeting planning, arrangements for hotel and meeting room accommodations, explore options for local travel for participants, and timely notification of meeting participants. NASA will submit an agenda one month prior to the meeting. NASA will provide guidelines for the preparation of the meeting materials to the Contractor no later than two weeks prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting date. Additionally, a meeting CD of all participants' presentations will be prepared and distributed to ICASS members. Currently, there are 13 member countries in ICASS.

6. Air Traffic Procedures Advisory Committee (ATPAC) Meetings – The Contractor shall provide one staff member highly qualified in ATC regulations and procedures to participate as an ASRS representative to the FAA Air Traffic Procedures Advisory Committee (ATPAC) meetings. These meetings are currently held three times per year and often in Washington DC. The Contractor staff shall prepare material on recent incidents or emerging safety issues reported to the ASRS concerning air traffic issues.

Timeline: The Contractor shall provide material intended for these ATPAC meetings to the NASA ASRS Program Director or Deputy Program Director for approval no later than one week prior to the meeting dates.

7. Aviation Industry Safety Meetings, Conferences, Symposium, and Forums – The Contractor shall receive notice of these aviation safety meetings in advance and through coordination with the NASA Program Director, shall develop an annual list of events where ASRS participation is anticipated. These events are typically 10 per year. The Contractor shall provide staff and meeting materials for these meetings as specified by NASA ASRS Program Director.

Timeline: The Contractor shall provide material intended for these meetings to the NASA ASRS Program Director or Deputy Program Director for approval no later than one week prior to the meeting dates.

8. Unscheduled Meetings - Since meetings often arise on an ad hoc basis, the NASA ASRS Program Director or Deputy Program Director will inform the Contractor of the level of support required and the location of the meeting with NASA or special visitors. These meetings shall be conducted at either NASA ARC or the Contractor's facility. Other unscheduled meetings shall be planned in advance and may require travel. The NASA ASRS Program Director or Deputy Program Director will provide no less than 3 calendar days notification of the requirements for these unscheduled meetings. The Contract Technical Work Plans will address any unanticipated meeting attendance beyond historical levels (approximately 20 per year).

B. Products and Publications

1. ASRS Program Overview – The Contractor shall prepare an overview of the ASRS Program activities for the publication of a handout brochure; currently 6-pages in length. Each updated version will be provided for production and publication of this brochure following NASA approvals.

Timeline: The draft brochure shall be prepared twice per year. Following NASA Program Director or Deputy Program Director approvals, the brochure will be printed through Government provided services.

2. ASRS Alert Message Database and Distribution – The Contractor shall prepare Alert Messages for distribution via email to appropriate parties listed on the Alert Message Distribution lists provided by the Government. The size of the mailing list for each Alert Message varies with regard to the content of each message and its appropriate distribution. A typical message shall involve approximately 1-2 main addressees and 10 information copies. Each AB or FYI shall be addressed to a Government organization, a manufacturer, and/or others who have the authority to determine the validity of the issue being related in the Alert Message and provide a solution to prevent a reoccurrence of the event. Information copies shall be sent to the Government and industry organizations relevant to the alerted item as having potential safety value to their interests and ability to notify participants in the aviation system. The Contractor may receive responses from the alert message addressees, information copy organizations, or from the NASA ASRS Program Director or Deputy Program Director. The Contractor shall maintain and update the Alert Message Database that tracks status and responses to alerts. The Government will provide the database structure for logging the current and continuing information. The Contractor shall classify all ABs and FYIs and all responses received according to the AB/FYI Classification and Response Codes list. When a response is received, the de-identified responses shall be disseminated to the other original addressees and information copy organizations. The responder shall be identified only by organization, not proper name, within 1 week of receipt and upon concurrence of the NASA ASRS Program Director or Deputy Program Director. Any other requests for data contained in the Alert Message Database or the ABs and FYIs shall be released only with the concurrence of the NASA ASRS Program Director or Deputy.

Timeline: The Contractor shall determine the addressees, information copy organizations, and content summary of the Alert Messages and provide this to the NASA ASRS Program Director or Deputy Program Director for review and approval within 25 working days of report receipt. The Contractor shall assure that no AB or FYI is released prior to 30 calendar days from date of receipt without the concurrence and written approval of the NASA ASRS Program Director or Deputy Program Director.

3. ASRS CALLBACK Newsletter – *CALLBACK* is a monthly newsletter produced in collaboration with the Contractor's Editor, analysts, staff, and NASA ASRS Program Director or Deputy Program Director. This publication is written and created by Contractor staff and prepared for online posting on the ASRS website. This product shall continue to be produced in the current style, format, content, and quality. The availability of the newsletter is now only online at the ASRS website. An E-Notification system is active for those subscribers who have requested this service. New subscribers will need to be added upon the no cost request for subscription.

Timeline: The draft content shall be given to the NASA ASRS Program Director or Deputy Program Director for review on the 15th day of each month, the final layouts are due by the 25th day of each month. Each issue shall be available electronically on the ASRS website.

4. ASRS Website – The Contractor shall maintain the ASRS Website: (<http://asrs.arc.nasa.gov>). The current structure and contents shall be maintained and updated with new information as it becomes available (e.g., *CALLBACK* monthly issues, programmatic briefing). The "ASRS Data Report Sets" shall be renewed every 6 months with the most current and relevant database information. These Data Report Sets shall require NASA ASRS Program Director or Deputy Program Director approval prior to uploading. Any requests for ASRS information, database searches, etc., from the "Contact Us" feature on this site shall be referred to the NASA ASRS Program Director or Deputy Program Director. Any changes to the architecture, content, or layout of the website shall be submitted to the NASA ASRS Program Director or Deputy Program Director for approval.

Timeline: Monthly posting of CALLBACK newsletter shall be accomplished without interruption following award of contract and completion of the Phase-In period following NASA approvals. Monitoring of “Contact Us” online feature begins immediately following Phase-In of contract. Website updates to ASRS Data Reports Sets shall be provided to the NASA ASRS Program Director or Deputy Program Director for approval 5 months after award of contract.

VI. C3RS Planning and Project Research and Development

The C3RS Project is in the early stages of development and implementation at ASRS. The current planning for this research and development effort shall be the replication of the ASRS confidential reporting model. The initial replication shall follow closely in parallel to the ASRS program, but shall evolve to be appropriate to the domain and environment of railroad operations. The Contractor shall work with the NASA ASRS Program Director or Deputy Program Director to accomplish C3RS development in accordance with negotiation between NASA and Federal Railroad Administration. The final C3RS Interagency Agreement has been approved and work has begun with the railroad industry. Therefore, all work is expected to follow descriptions of ASRS Operation and Maintenance, Research and Products, Program Deliverables, etc. as addressed above. The requirements to be accomplished will be coordinated through the issuance of Contract Technical Work Plans on an incremental basis based on the work requirements and the funding availability.

VII. PSRS Status and Additional Development

The Contractor shall be directed through Contract Technical Work Plans concerning the PSRS operation. Currently the operation is suspended awaiting final agreements between a new partner and NASA. When operational, the ASRS model will continue to be directly applied to PSRS with report processing and preparation of research and operational reports from PSRS data. The infrastructure of the PSRS is mature and complete. Some updating and revision will be required following developments of NASA and partnership agreements. These reports shall include, but not be limited to, scientific and technical reports, safety newsletters, an annual report of PSRS operations, specific handling of information from the PSRS de-identified database, and informative reports and articles for use in safety and other educational programs.

VIII. Overall Program Deliverables

Overall Program Deliverables in the list below include those addressed above as well as reports and plans required after award, but this list is not inclusive.

A. Reports and Plans

The Contractor shall develop, implement, and maintain two security plans, which will include both Facility and IT security procedures and policies.

1. ASRS and Related Systems Facility Security Plan - The ASRS and Related Systems Facility Security Plan shall address at a minimum the issues identified in the ASRS Minimum Security Considerations (see Appendix C).
Timeline: A Draft ASRS and Related Systems Facility Security Plan shall be submitted with the offeror's proposal, in accordance with directions in RFP Section L. The final, approved ASRS and Related Systems Facility Security Plan is due to the Government no later than 20 calendar days after contract award. This plan shall be reviewed annually and updated as appropriate. The Final ASRS and Related Systems Facility Security Plan shall be incorporated into the contract as Section J.1(a)9.
2. ASRS and Related Systems IT Security Management Plan – This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract.
Timeline: The final ASRS and Related Systems IT Security Management Plan shall be submitted in accordance with directions in RFP Clause I.6 “Security

Requirements for Unclassified Information Technology Resources.” This plan is due to the Government no later than 30 calendar days after contract award. The final ASRS and Related Systems IT Security Management Plan shall be incorporated into the contract as Section J.1(a)3.

3. Contingency Plan - The Contractor shall develop a Contingency Plan to address the actions that would be necessary to assure accessibility and preservation of the ASRS, C3RS, and other databases in the event of a catastrophe. The plan shall accomplish the requirement of providing a reinstated database at 98% of pre-catastrophic condition. The full recovery of the databases is expected within 1 week of downtime. The recovery procedures addressed in the Contingency Plan shall be demonstrated to NASA 30 days after contract award and annually thereafter.
Timeline: The Contingency Plan shall be delivered to the NASA ASRS Program Director or Deputy Program Director for approval no later than 30 days after contract award. This plan shall be reviewed annually and updated as appropriate.
4. Telephone Conduct Plan - The Contractor shall develop a set of guidelines for analysts' telephone conduct prior to conducting programmatic phone calls. These guidelines shall include who contacts the reporters, how the analysts identify themselves to the reporter, how messages are left at work or home for a return collect phone call, and how reporters' collect calls are handled once received. This plan shall include Contractor staff guidelines concerning telephone and direct communication with media, lawyers, general public, NASA, FAA, NTSB, Congress and other Government agencies. These inquiries shall be forwarded to the NASA ASRS Program Director or Deputy Program Director, as appropriate. Upon NASA approval, the Contractor shall educate the staff on this conduct and the importance of confidentiality protections. This training is mandatory and shall be provided for re-training every 6 months.
Timeline: The Telephone Conduct Plan shall be delivered to NASA for approval 2 weeks after award. This plan shall be reviewed semi-annually and updated as appropriate.
5. Quality Assurance Plan – This plan shall be incorporated into the Contractor's Standard Operating Procedures Manual (SOP) following NASA approval and discussions.
Timeline: The Quality Assurance Plan shall be delivered to NASA for approval 3 months after award. This plan shall be reviewed annually and updated as appropriate.
6. Annual Reports - The Contractor shall provide annual reports to NASA on each reporting system. These reports shall provide summaries of the previous calendar year's activities and any other related program activity, performance and output, details of problems encountered or anticipated, staffing levels, security issues, and information regarding system costs. Other topics may be requested to be included at such time as the NASA Program Director can provide to Contractor.
Timeline: The draft annual report shall be delivered to NASA by January 30 of each calendar year. After NASA approval, the final annual report shall be due on or before the following February 20.
7. Monthly Program Activities Report - The Contractor shall provide monthly reports to NASA on each reporting system. These reports shall provide an overview of the previous month's activities, including data production statistics that describe intake, types of reporter's, cumulative statistics, electronic vs. paper volume, data requests, alert messages, DBOL activity, website activity, and any other pertinent information related to program productivity. Other topics may be requested to be included at such time as the NASA Program Director can provide to Contractor.
Timeline: The monthly report shall be delivered to NASA by the 7th day after the reporting month's completion.

IX. STATEMENT OF WORK ACRONYMS AND TECHNICAL TERMS

| ACRONYM | TECHNICAL TERM / DESCRIPTION |
|-----------------------|--|
| AB | Alert Bulletin |
| ACN | Accession Number |
| ACO | Administrative Contracting Officer |
| Alert Message Report | Report describing an aviation incident of a significant safety hazard which has been prepared for dissemination as an Alert Bulletin or FYI notice |
| ASAP | Aviation Safety Action Program |
| ASRP | Aviation Safety Reporting Program |
| ASRS | Aviation Safety Reporting System |
| ASRS AC | Aviation Safety Reporting System Advisory Committee |
| ATC | Air Traffic Control |
| ATPAC | Air Traffic Procedures Advisory Committee |
| ATSAP | Air Traffic Safety Action Program |
| C3RS | Confidential Close Call Reporting System |
| CD | Calendar Days |
| CFR | Code of Federal Regulations |
| CO | Contracting Officer |
| COTR | Contracting Officer's Technical Representative |
| COTS | Commercial off-the-shelf (software) |
| DBOL | Database On Line |
| Decap | Process of removing the date stamped ID strip from a reporting form for mailing to the reporter |
| FAA | Federal Aviation Administration |
| FACA | Federal Advisory Committee Act |
| FOIA | Freedom of Information Act |
| FRA | Federal Railroad Administration |
| Full Form Report | Report on incident or safety concern selected by category from screened reports for inclusion in a database |
| FYI | For Your Information messages |
| GPO | Government Printing Office |
| Incident Anomaly List | List of the types of anomalies associated with a reported event that corresponds to the specific database coding fields |
| Incident Record | Database record of all incident reports that describe a single incident |
| Incident Report | Report on incident or safety concern submitted to a reporting system on a NASA form or by letter (when the form is not available) |
| Mandatory Report | Report that describes an incident event listed as a bold item on the Incident Anomaly List |
| MRM | Multiple Report Matching |
| NASA | National Aeronautics and Space Administration |
| NCPS | National Center for Patient Safety |
| NTSB | National Transportation Safety Board |
| PSRS | Patient Safety Reporting System |
| Screened Reports | All incident reports are read and evaluated by Expert Analysts for each reporting system |
| VA | Department of Veterans Affairs |
| VHA | Veterans Health Administration |
| WD | Working Day |

X. APPENDIX AND ATTACHMENTS TO STATEMENT OF WORK

A. ASRS AB/FYI CLASS TRANSACTION LIST

1. Aircraft Avionics
2. Aircraft Power Plants
3. Aircraft Systems
4. Airport Lighting and Approach Aids
5. Airports Facility Status and Maintenance
6. ATC Equipment
7. ATC Operations
8. ATC Procedures
9. Hazard to Flight
10. Navigation
11. Other
12. Security

B. ASRS RESPONSE CODE TRANSACTION LIST

- B. Action Initiated before AB/FYI Received
- C. Action not within Addressee's Jurisdiction
- F. For Information Only; No Response Expected
- H. Addressee agrees with AB/FYI, but unable to resolve
- I. Action Initiated in Response to AB/FYI; Not Completed
- N. Addressee in Factual Agreement but Sees No Problem
- Q. Information in AB/FYI Insufficient for Action
- T. Action Taken as a result of AB/FYI
- U. Issues Raised by AB/FYI Under Investigation
- W. Addressee Disputes Factual Accuracy of AB/FYI

C. ASRS MINIMUM SECURITY CONSIDERATIONS

1. Procedures for Maintaining Report Confidentiality
 - Reporter anonymity
 - Telephone Inquiry - Verification of Reporter
 - Identified materials
 - File Management
 - Sensitive materials - define
 - Use of reports for publication
 - Release of de-identified reports
 - Telephone privacy and phone call record control
 - P.O. Box Security - Mail pick up

2. Procedures for Maintaining Facility Security
 - Location of identified materials
 - Door security
 - Access Control
 - Working hours
 - Off-hours
 - Conference room use
3. Procedures for Visitors
 - Scheduled visitor
 - Unannounced visitor
 - Visitor log
 - Escort criteria
 - Authorized, routine visitor - cleaning staff, repair and maintenance personnel, etc.
 - Unauthorized visitors - burglary, vandal, etc.
4. Procedures for Facility Data Controls
 - Incident reports
 - Alert message log
 - Search request log
 - Publication mailing lists
 - ASRS research data (structured callback, topical research)
 - Password access controls - user identification, authentication, authorization
 - Back-up contingency databases and computer files/tapes (describe briefly – Contingency Plan will be detailed description)
5. Procedures for Risk Management
 - Assessment of risk
 - Hardware failure
 - Software failure
 - Procedural failure
 - Fire, Explosion, Flood, Earthquake
 - Theft or Vandalism - physical facility, data records, etc.
 - Data corruption - hacker/cracker, virus, unauthorized data alteration, unintentional error
 - Personnel screening and training
 - Audit capability

D. SIMPLIFIED ASRS REPORT PROCESSING FLOWCHART

(SEE NEXT PAGE)

Simplified ASRS Report Processing Flowchart

July 13, 2010

