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Administrative and Management

Managing the Acquisition of Environmental Data from External Parties, NWSPD 1-12

OBTAINING ENVIRONMENTAL DATA FROM EXTERNAL PARTIES

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Director, Strategic Planning and Policy

Obtaining Environmental Data from External Parties

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1. Introduction. This instruction is designed to guide the National Oceanic and Atmospheric Administration’s (NOAA) National Weather Service (NWS) Data Acquisition Officers^{1,2} through the special concerns associated with obtaining environmental data³ from external parties by describing various terms which data providers might seek as a condition of providing data to NWS; helping Data Acquisition Officers evaluate which of these terms might be applicable/acceptable; and providing specific language to implement such terms within a contract, Memoranda of Understanding/Agreement (MOU/MOA), or licensing agreement (“data agreement”).⁴ The particular form of the data agreement (i.e. contract, license, MOU, etc.) may include specific requirements for analyses⁵, and this instruction is not intended to serve as a substitute for these requirements, policies, or regulations.

In a similar vein, there are various policies and regulations regarding information technology, information security, information management, data stewardship, and the like which this instruction neither addresses nor contravenes. For example, NOAA Administrative Order (NAO) 212-15, “Management of Environmental and Geospatial Data and Information,” sets forth policy for management of environmental and geospatial data and information. Data obtained from external parties must be managed in a manner consistent with NAO 212-15. Further, this instruction does not contravene required compliance with Federal Acquisition Regulations (FAR) Clause 52.239-1, *Privacy or Security Safeguards*, Commerce Acquisition Regulations (CAR) Clauses CAR 1352.239-73- *Security Requirements For Information Technology Resources* and CAR 1352.239-74 *Security Processing Requirements For Contractors/Subcontractor Personnel For Accessing Doc Information Technology Systems* and other Department of Commerce and NOAA information security policies and standards. Nor does this instruction contravene or serve in the place of specific policies which apply to the management of environmental data once acquired or the management of information technology used to acquire, store, and use environmental data NWS obtains from non-federal sources, including NWS Directives 60-6 *Information Technology Privacy Policy* and 60-7 *Information Technology Security Policy*.

This instruction does not address concerns that are common to environmental data regardless of whether NWS produces the data itself or obtains it from external parties. These common concerns include accuracy, reliability, reporting formats, update frequency, quality assurance, quality control, or technical requirements such as spatial/temporal resolution.⁶

Furthermore, this instruction is not intended to be a primer on acquisition of items other than

1 See NWS Directive 1-12, “Managing the Acquisition of Environmental Information From Non-Federal Sources” for definitions of “Data Acquisition Officer,” “data agreement,” and “environmental data” as used in this instruction.

2 Data Acquisition Officers are the intended audience for this instruction.

3 Environmental Data includes observations, analyses, and predictions, on all time scales and for all times, of the atmosphere, ocean, land, space, and sun whether biological, chemical, electromagnetic, physical, or social; as well as associated metadata providing information about the means of estimation of the environmental information itself.

4 A Glossary of Terms and References is included as Attachment 1 in this instruction’s companion National Weather Service Policy Directive NWSPD 1-12.

5 In particular, specific rules must be followed for MOU/MOAs, contracts, and cooperative agreements.

6 See NWS Instruction 10-1301, “Instrument Requirements and Standards for the NWS Surface observing Programs (Land)”

actual environmental data. In particular, it does not concern acquisition of observing equipment, software, or other things which might be used to *produce* environmental data. The focus is on acquisition of environmental data itself.

2. Purpose. The instruction is organized to define specific terms applicable to data agreements, and lead the Data Acquisition Officer through various steps in analyzing their particular data agreement, including: establishing requirements; evaluating costs; and making a decision to obtain data from an external party. Appendices provide additional background materials including examples of data agreements that NWS has signed, and a data rights worksheet to assist Data Acquisition Officers in determining which data clauses are necessary to include in any data agreement.

3. Scope. NWS obtains various environmental data from external parties under a variety of agreements which establish the terms and conditions for use of the externally obtained data. This instruction guides Data Acquisition Officers through the process of establishing terms of use. The most fundamental term of use is NWS' authority to redistribute the data – these redistribution rights take three fundamental forms (unrestricted, temporarily restricted, and restricted). Restricted data may also be subject to specific exemptions (e.g. an exemption may allow redistribution of data during emergencies). Other important terms of use include attribution, indemnification, non-exclusivity, and (sometimes) forms of non-monetary compensation. This instruction offers specific example language to implement most of these terms/clauses, guidance regarding terms which are mandatory and/or forbidden as a matter of NWS policy and practice, and references to sources of expertise within NWS to provide additional support for more complex cases.

Data Acquisition Officers are guided through a series of analyses to establish NWS requirements for specific terms of use for their specific case, and to identify terms of use which are desirable, though not required (in effect, establishing a negotiating range). It is assumed that the Data Acquisition Officer will establish technical requirements for the data (e.g. reporting frequency, accuracy, formats, metadata, reliability, precision, etc.) through other means, i.e. this instruction is focused exclusively on establishing NWS terms of use with respect to externally obtained environmental data.

The Data Acquisition Officer is guided through analyses regarding the effects of terms of use clauses on the true costs and value of externally obtained environmental data to support the decision regarding whether NWS should obtain the data offered by a potential provider.

Data agreements are executed through various instruments (e.g. contracts, MOUs, licenses and others). Data Acquisition Officers are provided with a catalog of such instruments (See section 13).

A final section provides guidance on recordkeeping for completed data agreements.

Appendices include background information such as sample data agreements and references to sources of information specific to particular forms that a data agreement might take (contract,

MOU, license, etc.). Appendix A is a Data Rights Worksheet for Externally Obtained Data (template). Appendix B is a sample agreement for obtaining unrestricted data. Appendix C and D provide examples of data agreements in the form of an MOU and Appendix E provides an example of a data agreement in the form of a contract.

4. Information Produced by NWS. U.S. government information policy is based on the premise that government information is a valuable national resource and economic benefits to society are maximized when taxpayer-funded information is made available inexpensively and as widely as possible. This policy is expressed in the Paperwork Reduction Act of 1995 and in Office of Management and Budget Circular No. A-130, “Management of Federal Information Resources.”⁷ NWS adheres to these U.S. Government policies⁸ by disseminating information produced by NWS on an unrestricted basis for no more than the marginal cost of distributing it to the public.

5. Information Obtained from External Parties. The NWS, in order to carry out its mission and programs, must obtain access to many kinds of data produced by others.⁹ It is NWS policy to make such data in its possession available to public and private sector users without restriction, to the extent practical and within resource constraints. However, the ability of NWS to implement this commitment to open and unrestricted data is limited whenever NWS agrees to restrictions on dissemination or use as a condition of receiving the data or information.

When negotiating terms for obtaining data, NWS recognizes other parties may have a legitimate proprietary interest (e.g., a property right or other valid economic interest) in data resulting from private investment. Other parties may also have proprietary interests that are not purely economic in nature (e.g. privacy or security¹⁰ concerns). If NWS accepts data under restrictive/proprietary terms, protection of such data from unauthorized use and disclosure is necessary to prevent compromise of the provider’s property right or economic interest; avoid jeopardizing the provider’s commercial position; and preclude impairment of the ability of NWS to obtain access to or use of such data.

NWS officials should avoid agreeing to restrictions and negotiate the least restrictive terms possible. Providers may legitimately charge a premium for data provided under terms that allow NWS to redistribute the data to others, since such redistribution can reduce the provider’s ability to charge others for their data. When obtaining data from providers who seek such a premium, NWS must decide whether it is more appropriate to pay a premium for less restrictive terms or pay a lower price for more restrictive terms.

In light of the above, NWS must strike a balance between the Government’s need and the

7 See 44 United States Code Chapter 35, and 61 Federal Register 6428 (February 20, 1996).

8 See also the NOAA Policy on Partnerships in the Provision of Environmental Information (http://www.corporateservices.noaa.gov/~ames/NAOs/Chap_216/216-112.pdf) and the implementation of this policy within NWS under NWS Directive 1-10 “Managing the Provision of Environmental Information” (<http://www.nws.noaa.gov/directives/sym/pd00110curr.pdf>).

9 See NAO 212-215 Management of Environmental and Geospatial Data and Information.

10 In rare cases, “security concerns” may extend to data which is classified. This Instruction does not address the special requirements associated with classified data.

provider's legitimate proprietary interest, and this instruction is intended as a guide to balancing these interests in an appropriate way.

6. Description of Terms. It is necessary for Data Acquisition Officers to understand several terms which are applicable to data agreements in general, and which may be applicable to the particular data agreement under consideration.

6.1 Redistribution Restrictions. External providers often seek to restrict the right to redistribute their data. Such restrictions can take different forms, as described below, but the first question is what the term "redistribution" means. If NWS were to obtain data and give that data to others, in *exactly* the form we receive it, then the data has clearly been "redistributed." However, it is easy to transform environmental data from one form to another, (e.g. to rearrange the order of the columns for data received as a table) or to transform the units (e.g. convert temperatures from Fahrenheit to Celsius), and most would understand that if NWS were to perform some simple, reversible, transformation on data before sending it to others, then we have still "redistributed" the data.

For definitional purposes, NWS understands "redistribution" of data includes the distribution of any product from which the original data can be readily extracted. Conversely, if NWS transforms or combines certain environmental data into a product from which the original data cannot be readily extracted, and distributes such a "derivative product" to others, NWS understands that it has not "redistributed" the original data. This definition is a practical one, but it does create a gray area regarding what *exactly* is meant by "from which the original data can be readily extracted." Nevertheless, this approach has been used successfully by NWS in data agreements signed by both providers and by NWS. Data agreements will typically include some mechanism for resolving disputes (e.g. contracts typically contain such provisions) which might be invoked if there is a disagreement regarding whether or not distribution of some derivative product, in effect, also redistributes the original data. NWS can reduce the likelihood of such disputes by avoiding redistribution of derivative products which involve very simple transformation of the original data.

An example of a derivative product includes national lightning data that is ingested into NWS systems in an original form from a vendor with limited rights for redistribution. A derivative product is then created when these data are integrated with radar data to form a thunderstorm product whereby regions of thunderstorm activity are denoted without identifying the actual lightning data.

There are three main categories of restrictions on the redistribution of data; 1) unrestricted, 2) temporarily restricted, and 3) restricted.

6.1.1 Unrestricted. The preferred "restriction" on the redistribution of data is no restriction - allowing for the immediate redistribution of data. Data obtained from other government agencies (federal, state, local, tribal, or other countries), academic institutions, other types of non-governmental organizations, and private citizens is often (though not always) available

under unrestricted terms.¹¹

6.1.2 Temporarily Restricted. This category restricts the immediate redistribution of data yet allows the redistribution of the data at a later time. This restriction allows the NWS to retain the data and distribute it freely at some future time, with the delay between receipt of the data and the expiration of the restriction on redistribution subject to negotiation with the provider. Data obtained from commercial sector parties will often entail some form of restriction, including a possible delay in redistribution.

6.1.3 Restricted. A clause restricting the redistribution of data often does so in perpetuity. Clauses describing restricted data rights should be clear on what “redistribution” means and also clear on the rights NWS retains. For example:

“NWS may disclose or redistribute derivative products incorporating [company] data in whole or part as long as such derivative products do not have sufficient information to readily retrieve the original content of the [company] data provided under this data agreement.”

Restrictions may be further limited as follows: NWS-only, NOAA-only, and/or Government-only. These restrictions include the possibility of making these data available to either a contractor or institution supporting each of these entities under agreement in support of its mission. (see also 6.2.2.4)

6.2 Exemptions to Redistribution Restrictions. When NWS accepts redistribution restrictions (temporarily or in perpetuity), we may negotiate exemptions to these restrictions with the provider. Typical exemptions include:

6.2.1 Mandatory Exemptions:

6.2.1.1 No Restrictions on Derivative Products. NWS will avoid any form of restrictions that would apply to derivative products. A derivative product is a product that is developed with some component of the obtained data. If NWS were to accept data under terms which restricted distribution of derivative products, NWS could be liable for claims of damage from the distribution of such derivative products (e.g. model guidance which incorporates observational data with such a restriction). For example:

“Redistribution of derivative products is authorized as long as such derivative products do not have sufficient information to readily retrieve the original content of the [company] data provided.”

¹¹ See NWS Instruction 10-1311, “Supplementary Observations and Complementary Data Sources and Networks.” The form used for unrestricted agreements is located in Appendix B of this Instruction.

6.2.1.2 When Required by Law. It is important for clarity to include clauses describing this exemption in data acquisition agreements. For example:

“When required by the Freedom of Information Act, or other applicable laws, provided that [company] has been provided reasonable prior written notice.”

6.2.2 Recommended Exemptions:

6.2.2.1 With Express Written Permission of Provider. A clause providing redistribution rights given the express written permission of the provider makes it clear that NWS needs to seek such permission for any redistribution not covered by other exemptions. Such clauses are recommended because they provide additional clarity. For example:

“NWS can redistribute data provided under this agreement when given prior, express written permission by the [company].”

6.2.2.2 Incidental. An “incidental” restriction on obtained data restricts the redistribution of data as a regular practice, but allows NWS to incidentally cite the data in an NWS product and/or NWS publication. A clause of this sort costs the provider little, since the data is only occasionally distributed by incidental reference, yet it gains them an opportunity to publicize the use of their data to support the NWS mission, while safeguarding NWS in the incidental use of that data.

Use in NWS Products: Data Acquisition Officers may seek a less-general incidental use clause which authorizes NWS to incorporate data obtained under a data agreement, especially in products supporting public safety, even if the original data is easily extracted. For example:

“NWS may utilize data obtained under this data agreement by occasionally incorporating such data through references within standard NWS products¹², even when such references allow the original data to be extracted.”

Use in NWS Publications: If a NWS employee writes a scientific paper that includes data covered by the data agreement, the data agreement’s terms of use may also apply to use in the scientific publication. Often the scientific publication will include derivative products rather than the original data and in such cases the exemption on derivative product restrictions applies (See Section 6.2.1.1). If the scientific publication includes original data it may be necessary to get express written permission from the provider for use in the publication. (See Section 6.2.2.1). NWS may also seek to expand an incidental use exemption by adding the phrase “or scientific publications” to the above clause, viz. “... through references within standard NWS products or scientific publications, even ...”

¹² This example would allow incidental references to data obtained under an agreement within *any* NWS product. Some providers may seek to limit the types of NWS products for which such incidental references are allowed, e.g. “within NWS products which support public safety such as watches and warnings” rather than the example language “within standard NWS products.”

6.2.2.3 Emergency. The use of an emergency clause in a data agreement absolves NWS from liability if we distribute obtained data, in raw form or otherwise, to others in an emergency. One easy-to-understand example would be the redistribution of otherwise-restricted wind data in response to an airborne toxic release. NWS should seek to exempt redistribution during emergencies from restrictions on redistribution of data in any data agreement. For example:

“In cases of emergencies, NWS may distribute [company] data, in raw form or otherwise, to others as it deems appropriate under the circumstances. In all cases of such distribution of data NWS will notify [company] of the circumstances of such distribution as soon as is practical.”

Back-up. As a special case of an emergency exemption, a “back-up” clause will authorize the redistribution of obtained data if the primary source of data fails – in effect it defines one of the “emergencies” as the failure of the primary source of the data. For example:

“Data obtained under this agreement may be used by NWS as an alternative for a primary source of information routinely obtained by NWS through other means. In cases of failure of this primary source, NWS may distribute [company] data, in raw form or otherwise, to others as it deems appropriate under the circumstances. In all cases of such distribution of data NWS will notify [company] of the circumstances of such distribution as soon as is practical.”

6.2.2.4 Federal Agency Redistribution. The use of a federal agency redistribution clause will authorize NWS to share obtained data with other NOAA line offices and/or other federal agencies. This clause contributes to overall government efficiency by consolidating government needs for the subject data under a single data agreement. It is important to support structuring such clauses appropriately by determining which other agencies require the data covered by the data agreement and documenting their requirements. Data Acquisition Officers should seek the right to redistribute data to any NOAA office, with the understanding that all NOAA offices which obtain the data from NWS will honor the same terms in the data agreement. For example:

“Permitted under this data agreement will be necessary sharing of [company] data or derivative products incorporating [company] data with NOAA’s other line organizations and other appropriate government agencies. It is understood and agreed that NWS will take appropriate steps to ensure that such agencies are aware of, and agree to abide by, the restrictions on redistribution reflected herein.”

Restrictions may be further limited as follows: NWS-only, NOAA-only, and/or Government-only. These restrictions include the possibility of making these data available to either a contractor or institution supporting each of these entities under agreement in support of its mission.

6.2.2.5 Long-Term Expiration of Restrictions. NOAA is responsible for the long-term archival of environmental data to establish the Nation’s climate record.¹³ To further this mission, Data Acquisition Officers should consider a clause which causes all redistribution restrictions to expire after a long period of time, say 10 (or more) years. This exemption is considered as a separate item from the “temporarily restricted” category of data rights; the idea being that after some lengthy interval the data will have little or no value to the provider, but may be useful for future use to further scientific inquiry. For example:

“All other terms and conditions within this agreement notwithstanding, NWS will have unrestricted rights to use the data provided under this agreement for any purpose, including redistribution to others, after a period of 10 years following the receipt of the data.”

6.2.3 Other Exemptions (Redistribution for Non-Commercial Use). Data agreements may include a clause authorizing redistribution of data to other parties for specified purposes. Such clauses are usually intended to allow research/academic use of the redistributed data, but not allow commercial uses of the data. Their application can be problematic if they shift the burden of proof to NWS to determine whether data was redistributed to a commercial entity. Therefore it is preferable to include a clause that allows redistribution when given written permission (see section 6.2.2.1) since this will document the provider’s approval of the redistribution to a specific party and make the provider responsible for determining whether or not any specific use meets their standard for “non-commercial use.”

6.3 Attribution of Obtained Data / Non-Endorsement. Oftentimes in negotiating a data agreement, the external party will request that NWS provide some form of attribution by NWS of the source of the data. NWS will always¹⁴ provide the facts of our acquisition of data from other parties, e.g. by making the text of any data agreement available on request. However, NWS should never promise attribution within the text or content of official NWS products.¹⁵ External parties may also want to cite NWS use of their data in press releases, advertising, etc. NWS should scrupulously avoid making any statements which could be construed as endorsing any one provider. Any Data Acquisition Officer approached by an external party desiring to cite NWS’ use of their data in a press release of similar document should contact the NWS Public Affairs Office for further guidance. Furthermore, NWS should seek to include a non-endorsement clause into the data agreement, in an effort to avoid any appearance of NWS endorsing one provider over another. For example:

Attribution Clause: *“NWS may freely describe its use of [company] data in any such derivative products, but is not required to do so.”*

Endorsement Clause: *“There shall be nothing in any program, announcement, release, or*

13 See NAO 212-15 *Management of Environmental and Geospatial Data and Information* and NOAA Procedure for Scientific Records Appraisal and Archive Approval.

14 There may be rare exceptions where NOAA/NWS would not acknowledge that it obtains / uses certain data, e.g. if such disclosure raised national security concern.

15 NWS might attribute the source of data within an NWS product, but only if necessary to explain the product’s information content to meet its intended use – not as a means of “giving credit” to the source of the data.

other written or verbal communication that constitutes an endorsement, expressed or implied, by NWS of [company] and/or any commercial products it promotes or advertises.”

6.4 Security Controls. Transfer of environmental data to NWS necessarily requires some form of connection be established between information technology managed by the information provider and information technology managed by NWS – exposing NWS information systems to risk. To manage these risks, Data Acquisition Officers need to assess security controls for data agreements they are responsible for.

6.4.1 Contracts. Data agreements implemented as contracts must comply explicitly with Federal Acquisition Regulations (FAR) Clause FAR 39.107, subsection FAR 52.239-1, *Privacy or Security Safeguards*, for information technology which require security of information technology, and/or are for the design, development, or operation of a system of records using commercial information technology services or support services. Furthermore, all data agreements implemented as contracts must adhere to Commerce Acquisition Regulations (CAR) Clauses CAR 1339.70, subsection 1352.239-73- *Security Requirements For Information Technology Resources* which establishes security requirements for information technology resources and CAR 1352.239-74 *Security Processing Requirements For Contractors/Subcontractor Personnel For Accessing Doc Information Technology Systems* which proscribes security processing requirements for contractors/subcontractor personnel for accessing document information technology systems.

6.4.2 Other Data Agreements. Data agreements implemented in forms other than contracts must nevertheless comply with the intent of the security controls described above. In many cases, this can be accomplished by directly including the appropriate language from FAR and/or CAR cited above in the body of the data agreement. In other cases, the intent of these security requirements can be met without explicit reference. The NWS Chief Information Officer (CIO) is the authority on this matter, and Data Acquisition Officers should consult the CIO for any questions regarding how to appropriately include security controls within any data agreement.

6.5 Indemnification. In many data agreements indemnification clauses are included to compensate one party for loss, damage, or hurt resulting from the activities that are carried out under the agreement. Under an indemnification clause, one party promises, in effect, to cover another party's loss. The government is often asked to enter into a data agreement that includes indemnification clauses. The problem with such a data agreement is that it creates a risk that the government, at some point in the future, may have to pay amounts in excess of available funds. An agreement that includes an indemnification clause violates both the Anti-deficiency Act, 31 U.S.C. § 1341, and the Adequacy of Appropriations Act, 41 U.S.C. § 11, since it never can be said that sufficient funds have been appropriated to cover the government's indemnification exposure. The government may not legally enter into data agreements that include indemnification clauses where the amount of the government's liability is indefinite, indeterminate or potentially unlimited.¹⁶

¹⁶ As a matter of law, there is one very limited exception that does not apply in the instant matter, absent express statutory authority

At times this can create a difficult situation since the other party may routinely include indemnification clauses in data agreements it enters into and/or may not understand federal government agencies are not legally authorized to agree to indemnify another party. To address such cases, a clause has been developed that clearly explains how NWS will address claims for damage or injury resulting from its actions under a data agreement, as follows:

“NWS agrees to promptly consider and adjudicate any and all claims that may arise out of actions it takes pursuant to the provisions of this agreement, and to pay for any damage or injury as may be required by Federal law. Such adjudication will be pursued under the Federal Tort Claims Act, 28 USC §§ 2671 - 2680, or under such other legal authority as may be pertinent. NWS also agrees to consider and adjudicate any claims for damage or injury sustained by NWS personnel in the performance of their official duties. Such adjudication will be made pursuant to the Federal Employees Compensation Act, 5 USC §§ 8101 - 8193, or other such legal authority as may be pertinent.”

This clause may be proposed as a substitute for an indemnification clause. Experience has shown that frequently this clause is acceptable to the other party and therefore it is added to the data agreement. This clause is not required since it merely states the law. Therefore, if the other party is willing for the data agreement to be silent on indemnification, that is an acceptable result.

6.6 Non-Monetary Compensation. Sometimes NWS will be asked to provide specific actions in exchange for receipt of data. There are three main categories of actions NWS may be asked to provide in exchange for receipt of data: “offering of service,” “trading on NWS name,” and “trading information with the external entity.”

6.6.1 Offering of Service. In exchange for the receipt of data, NWS may be asked by the external party to provide a specific service (e.g. monitoring, quality control, siting guidelines). NWS must only agree to impart a service it can in fact do; be prepared to follow through with the requested service; be willing to provide the same service for other external entities under similar conditions; and be careful not to commit future resources NWS may not have. The following is an example of a “service” clause:

“NWS and [company] will work jointly to determine data communication, data coding and formatting requirements, to ensure compatibility with NOAA systems so as to help facilitate the assimilation of such data by NOAA.”

6.6.2 Trading on NWS Name. On occasion, NWS is asked by an external party to authorize their use of NWS’ good name in securing additional business. In an effort to gain credibility with a third party, an external entity may want to highlight the use of their data by NWS using such terms as “on behalf of the National Weather Service” or use of the NWS emblem. This may imply that NWS endorses or is affiliated with the provider and its data, which is not acceptable. Additionally, the NOAA emblem is an official registered trademark of the United States Department of Commerce and may not be used without the express permission of NOAA. If an external party requests authorization to use NWS’ name in exchange for receipt of data,

contact the NWS Strategic Planning and Policy Office for further guidance.

6.6.3 Trading Information with Provider. Sometimes, a provider wishes to include within a data agreement provisions for the exchange of NWS information or data in return for giving the provider's data to NWS. Much of the information held by NWS is available to all under open and unrestricted terms, and providing access to such information is something NWS can readily agree to. When a provider wishes to gain access to information NWS does not normally distribute, there will likely be some barrier to distribution that must be overcome.

One typical barrier is some form of resource limitation, i.e. it costs money to consolidate and/or distribute the information asked for and NWS does not have (or has chosen not to spend in this way) the requisite resources. In such cases, a data agreement to distribute such information to an external party will incur real costs to NWS, and these costs must be considered in evaluating the acquisition. In addition, if NWS does agree to distribute the information sought, it should be clear that this is not an exclusive arrangement, i.e. that NWS may also agree to distribute this information to others under similar terms (see non-exclusivity in section 6.6). Furthermore, there may be issues associated with NOAA's implementation of U.S. Government information policies (see sections 4 & 5) if NWS does not *actually* provide the requested data to others – there is at least the appearance that such an agreement amounts to “charging¹⁷” an external party for the information NWS has produced at taxpayer expense, and unless authorized by statute, U.S. Government policies do not allow such charges. As a result of these complexities, Data Acquisition Officers who contemplate exchanging NWS information as a form of non-monetary compensation in a data agreement must contact the NWS Office of Strategic Planning and Policy for support, unless the requested data is already available as an approved NWS environmental information service.

Sometimes the barrier to distribution of the NWS information sought by the external party relates to restrictions on distribution of the information sought, and these restrictions must be honored. An example of such a contract clause:

“NWS acknowledges, however, cooperation and information from NWS and TPC/NHC may be needed in order to provide the forecasts requested hereunder. Without limiting the foregoing, TPC/NHC agrees to provide [company] all data feeds it has provided [third party] during prior hurricane seasons for the purposes of real-time super ensemble work in the same timely manner, subject to receipt of necessary third party consents.”

6.7 Non-Exclusivity. NWS must be clear that the data agreement¹⁸ is not exclusive and that both parties are free to enter into similar data agreements with other entities without the consent or approval of the other. For example:

¹⁷“Charging” used here in the sense that NOAA/NWS accepts data from the external party that has value, albeit not actual monetary compensation by the external party.

¹⁸ Standard agreements (see section 7.0) are typically non-exclusive on their face since they exist to provide a repeatable agreement among any parties who sign them.

“NWS and [company] recognize that this is a nonexclusive MOU and that NOAA and [company] may enter into similar agreements with other entities without the consent or approval of the other. This MOU does not affect the rights and obligations the parties may have under any other agreement nor does it preclude other arrangements between the parties.”

7. Accepting Standard Terms. In some cases external data will be offered under “standard” terms and the fundamental choice for a Data Acquisition Officer is whether these terms are acceptable. Potential providers may have a standard license agreement that they ask all of their data clients to accept (e.g. a “click through” license on a web site) or may offer data via the internet with some standard documentation of the terms and conditions under which the data is provided (NWS does this – see the “disclaimer” web page at <http://www.weather.gov/disclaimer.php>). Data Acquisition Officers should not assume that “standard” terms under which data is offered by external providers are acceptable to NWS.

Data Acquisition Officers need to get a copy of the “standard” terms under which the data is offered, and evaluate the standard agreement to determine how it treats each of the terms/clauses describe above (i.e. redistribution rights, attribution/endorsement, indemnification, non-exclusivity, and (rarely) non-monetary compensation). Unless the standard language includes unrestricted terms for redistribution, is non-exclusive, contains no form of endorsement expressed or implied, and makes the data available at little or no cost, further analysis will be needed, as discussed below. If there is any doubt as to the intent of a standard agreement, contact the NWS Office of Strategic Planning and Policy for help in interpreting the language.

8. Different Terms for Different Data. Although it is much simpler if all data (and associated metadata) is obtained under the same terms, this is not always possible. As a real-world example, NWS obtains real-time meteorological observations from ships at sea which identify, by name, the ship as part of the metadata associated with each observation. However, some ship owners do not wish to have their ship locations known (e.g. due to concerns about piracy) and are thus unwilling to have the ship name distributed in real time along with the remainder of the report (including time and location). As an alternative, NWS redistributes these observations in real time with the generic name “Ship” while retaining the actual name as an aid to quality control procedures and for potential delayed redistribution. In effect, the ship owner provides the report under unrestricted terms for all of its component data EXCEPT the ship name which is provided under temporarily restricted terms. When such cases arise, each component that has a different set of terms must be analyzed separately.

9. Establishing Requirements. Having read the preceding sections, Data Acquisition Officers should be in a position to analyze which of the various terms and clauses apply to their particular case. The attached “Data Rights Worksheet for Externally Obtained Data” (Appendix A) is provided to help Data Acquisition Officers record whether each of these clauses/terms is required/desired/acceptable for their particular case - subsections below guide the Data Acquisition Officer through this decision process.

9.1 Determining Appropriate Category for Redistribution Rights. As discussed earlier, data will be provided subject to one of three main categories of redistribution rights: Unrestricted,

Temporarily Restricted, and Restricted. One of the most important steps in establishing requirements for externally-obtained data is determining which of these categories is acceptable. Restricted redistribution rights are *only* acceptable if NWS has no requirement to redistribute the data to others, and temporarily restricted redistribution rights are *only* acceptable when NWS's requirement to redistribute the data can be deferred for some period of time. It is the Data Acquisition Officer's responsibility to determine what data redistribution rights are needed and what clauses should be included in a data agreement.

NWS always *prefers* to obtain data with no restrictions on redistribution for several reasons:

- Unrestricted data avoids the administrative burden associated with assuring that restrictions are honored.
- Unrestricted data avoids the risk that damages might be sought if the data are actually redistributed by NWS, i.e. contrary to the agreed-upon restriction. (Such damages might be sought even if the redistribution is inadvertent.)
- Unrestricted data have maximum value to NWS since they may be used for any purpose, e.g. such data can be incorporated freely into data streams containing data produced by NWS which is also provided under open and unrestricted terms (see section 4 above).
- Unrestricted data have maximum potential value to the economy at large, since their redistribution by NWS under the same open and unrestricted terms that apply to data produced by NWS allows external parties to make maximum use of the data to derive products of their own.

However, NWS's preference for unrestricted redistribution rights is not enough to establish that NWS *requires* such rights in specific cases. Approaches to establishing such requirements are discussed below.

9.1.1 Establishing Requirement for Unrestricted Redistribution Rights:

Precedent - NWS requirements to redistribute the data may be established by precedent (i.e. the external source is an alternative to a source which NWS traditionally distributes) along with a determination that termination of the existing distribution will not be acceptable by users.¹⁹

Regulation, Policy or Law - In some cases, NWS requirements to redistribute data may be founded in specific regulation, policy, or law. For example, the distribution of certain reports from the Automated Surface Observing System is essential to meet specific airspace regulations. In a similar vein, NOAA has responsibilities to establish, retain, and distribute the Nation's official climate records, and thus could not accept data from external parties intended to support this mission unless we also obtain the right to redistribute this data (although a temporary restriction on redistribution may be acceptable in such cases – see section 9.1.2 below). In addition, there may be a national security/homeland security issue(s) that argue, as a matter of policy, for government ownership of some information assets.

¹⁹ Termination of an existing product or service is subject to the NOAA Policy on Partnerships in the Provision of Environmental Information and its implementing policies in the NWS (see especially NWS Instruction 1-1002).

Other Federal Agency Requirements - In some cases, NWS may be obtaining data on behalf of other agencies (see discussion on redistribution to other agencies in section 6.2.2.4 above), and if these agencies are willing to establish and document their requirement for unrestricted redistribution rights, NWS may adopt such a requirement on their behalf.

It is more challenging to establish a “new” requirement for unrestricted redistribution rights, i.e. a requirement that is *not* supported by precedent, regulation, policy, law, or requirements established by other federal agencies. Data Acquisition Officers who wish to establish such a “new” requirement for unrestricted redistribution rights to external data will contact the NWS Office of Strategic Planning and Policy for support²⁰. As a formality, new requirements of this type are established under the NWS Operations Services Improvement Process (OSIP)²¹

9.1.2 Establishing Requirement for Temporarily Restricted Redistribution Rights. In a similar vein, even when NWS cannot obtain data with unrestricted redistribution rights, NWS *prefers* to obtain data with only temporary restrictions on redistribution, and generally to make the period of time that restrictions apply as brief as possible. Again, the question is whether NWS can support a *requirement* for such rights, not simply a preference. And the discussion above has a parallel here: If a requirement to redistribute the data, albeit delayed for some period of time, can’t be established by precedent, regulation, policy, law, or reference to other federal agency requirements, then a “new” requirement has to be established, and Data Acquisition Officers in such a position must contact the NWS Office of Strategic Planning and Policy (SPP).²²

9.2 Establishing Requirements for Specific Redistribution Rights Exemptions. If NWS does not have a requirement for unrestricted redistribution rights or a requirement for temporarily restricted redistribution rights, then NWS is willing to accept data with restricted redistribution rights. However, further decisions must be made regarding exemptions to these restrictions.

20 One approach to establishing such a requirement might be based on a “value proposition” that NWS should obtain such rights to be able to redistribute the data for purposes of maximizing its value to the US economy. This approach would call for challenging economic analyses, thus the call to seek assistance.

21 This instruction provides guidance on how to carry out the supporting analysis to establish a new requirement; however OSIP provides the procedural framework for formally establishing such requirements. (See NWS Instruction 10-103).

22 Requirements for temporarily restricted redistribution rights are often established to meet the data retention responsibilities of NOAA’s data centers. The most common such repository for data obtained by NWS is the National Climatic Data Center (NCDC). The NCDC Archivist has agreed to serve as SPP’s point of contact to help analyze NOAA’s requirements for long-term retention of environmental data that NWS might obtain from external parties.

9.2.1 Mandatory Exemptions. As noted in section 6, there are two mandatory exemptions that are required to be included in any negotiated data agreement²³.

9.2.1.1 No Restrictions on Derivative Products.²⁴ NWS strongly prefers to *explicitly* include clauses describing this exemption in data acquisition agreements. For example:

“The redistribution of derivative products is authorized as long as such derivative products do not have sufficient information to readily retrieve the original content of the [company] data provided.”

If NWS seeks to obtain data under a standard data agreement which allows open and unrestricted rights to use of data, the data agreement need not include a clause explicitly defining NWS’ right to redistribute derivative products.

Any Data Acquisition Officer contemplating a data acquisition agreement that includes restrictions on derivative products will contact the NWS Office of Strategic Planning and Policy for assistance.

9.2.1.2 Required by Law. NWS prefers to include explicit clauses describing this exemption in data acquisition agreements. For example:

“When required by the Freedom of Information Act, or other applicable laws, provided that [company] has been provided reasonable prior written notice.”

If NWS obtains data under a standard data agreement which is acceptable in all other regards, NWS will not insist on a customized agreement simply to include a clause stating that NWS may redistribute the data when required by law.

9.2.2 Recommended Exemptions. The following clauses are not mandatory for inclusion in data agreements, although they are good practice and should be included where possible.

9.2.2.1 Express Written Permission of Provider. A clause providing redistribution rights given the express written permission of the provider makes it clear that NWS needs to seek such permission for any redistribution not covered by other exemptions. For example:

“NWS can redistribute data provided under this agreement when given prior, express written permission by the [company].”

9.2.2.2 Incidental Use. NWS recommends including clauses describing this exemption in data

23 There are situations where a “standard” agreement (see section 7 above) may still be acceptable to NOAA/NWS even though the agreement does not include these “mandatory” exemptions explicitly, based on a determination that the standard agreement meets the intent of these mandatory exemptions. These situations provide additional impetus for Data Acquisition Officers to contact the NWS Office of Strategic Planning and Policy to review the terms of any standard agreement.

24 Acquiring data with a restriction on derivative products might be acceptable under a temporary agreement to assess the value of a potential data source; even then, great care would have to be exercised.

acquisition agreements as it safeguards NWS in the incidental use of that data in NWS products and/or publications. For example:

“NWS may utilize data obtained under this data agreement by occasionally incorporating such data through references within standard NWS products and/or publications authored by NWS employees, even when such references allow the original data to be extracted.”

When writing a scientific publication that includes original data, NOAA recommends getting the express written permission from the provider for use in the publication. (See clause in section 9.2.2.1)

9.2.2.3 Emergency Use. NWS recommends including clauses describing this exemption in data acquisition agreements as it will authorize the redistribution of obtained data in an emergency. A clause of this sort costs the provider little, since the data is only occasionally distributed under emergency situations, yet it gains them substantial good will and an opportunity to publicize their support for public safety. For example:

“In cases of emergencies, NWS may distribute [company] data, in raw form or otherwise, to others as it deems appropriate under the circumstances. In all cases of such distribution of data NWS will notify [company] of the circumstances of such distribution as soon as is practical.”

Furthermore, as a special case of an emergency exemption, a “back-up” clause will authorize the redistribution of obtained data if the primary source of data fails. The more general emergency use clause above is preferred, but a narrower “back-up” clause may be used when appropriate. For example:

“Data obtained under this agreement may be used by NWS as an alternative for a primary source of information routinely obtained by NWS through other means. In cases of failure of this primary source, NWS may distribute [company] data, in raw form or otherwise, to others as it deems appropriate under the circumstances. In all cases of such distribution of data NWS will notify [company] of the circumstances of such distribution as soon as is practical.”

9.2.2.4 Federal Agency Redistribution. NWS recommends including clauses describing this exemption in data acquisition agreements as it will allow NWS to make the data available to NOAA or other government agencies in general. For example:

“Permitted under this data agreement will be necessary sharing of [company] data or derivative products incorporating [company] data with NOAA’s other line organizations and other appropriate government agencies for furtherance of the NOAA mission. It is understood and agreed that NWS will take appropriate steps to ensure that such agencies are aware of, and agree to abide by, the restrictions on redistribution reflected herein.”

9.2.2.5 Long-Term Expiration of Redistribution Restriction. NWS recommends including a clause which causes all restrictions on redistribution to expire after 10 years or more.

“All other terms and conditions within this agreement notwithstanding, NWS will have unrestricted rights to use the data provided under this agreement for any purpose, including redistribution to others, after a period of 10 years from the receipt of the data.”

9.2.3 Other Exemptions (Redistribution for Non-Commercial Use). NWS recommends avoiding clauses that allow redistribution “for non-commercial use” or other similar terms which might require NWS to determine the uses that a third party might make based on data provided by NWS. Instead, NWS prefers to include a clause which allows redistribution when given express permission by the provider (see section 9.2.2.1 above). This will document the provider’s approval of the redistribution to a specific party and make the provider responsible for determining whether or not any specific use meets their standard for “non-commercial use.” For example:

“When given prior, express written permission by the [company].”

9.3 Establishing Requirements for Clauses Other Than Redistribution Rights:

9.3.1 Attribution. NWS may provide attribution of the source of the data, but will not promise attribution within the text or content of official NWS products. Attribution clauses should limit NWS’ commitment to providing the facts of our acquisition and use of the data.

External parties may also want to cite NWS use of their data in press releases, advertising, etc. NWS will stay close to the facts of the data obtained to avoid endorsing any one provider. Furthermore, NWS will insist on a non-endorsement clause (see section 6.3) in any data agreement which includes an attribution clause.

If the external party expresses a desire to cite NWS’ use of their data in a press release, advertisement, or similar document, the Data Acquisition Officer is instructed to contact their NWS Public Affairs Office for further guidance.

9.3.2 Non-Endorsement. NWS prefers the inclusion of an explicit non-endorsement clause into the data agreement, and will insist on such a clause in any data agreement that commits NWS to attribution of the data provider (see section 9.3.1 above). For example:

“There shall be nothing in any program, announcement, release, or other written or verbal communication that constitutes an endorsement, expressed or implied, by NWS of [company] and/or any commercial products it promotes or advertises.”

9.3.3 Security Controls. NWS may not enter into a data agreement implemented in the form of a contract without ensuring the following information technology security clauses are included in the data agreement (see section 6.4 above):

Federal Acquisition Regulations (FAR) FAR 52.239-1, “Privacy or Security Safeguards.”

See http://www.acqnet.gov/far/current/html/52_233_240.html.

Commerce Acquisition Regulations (CAR) CAR 1352.239-73 – “*Security Requirements For Information Technology Resources.*” See <http://oam.ocs.doc.gov/docs/PM%202000-03%20Local%20Clauses%20Updated%20Apr2007.pdf>.

CAR 1352.239-74 “*Security Processing Requirements for Contractors/Subcontractor Personnel for Accessing Doc Information Technology Systems.*” See <http://oam.ocs.doc.gov/docs/PM%202000-03%20Local%20Clauses%20Updated%20Apr2007.pdf>.

Data agreements implemented in forms other than contracts must comply with the intent of the above clauses (see section 6.4.2 above).

9.3.4 Indemnification. NWS may not enter into an agreement that provides for indemnification by NWS. As described in section 6.5, NOAA has developed a substitute for an indemnification clause. From the perspective of NWS, however, this clause is not required since it in effect states the law. Therefore, if the other party is willing for the data agreement to be silent on indemnification, that is an acceptable result.

9.3.5 Non-Exclusivity. NWS will always include clauses describing any data agreements NWS negotiates as non-exclusive (see section 6.7 above). If NWS obtains data under a standard data agreement which is acceptable in all other regards, NWS will not insist on a customized agreement to include a clause relating to non-exclusivity.

10. Decision to Obtain Data. Having determined which clauses/terms are required/desired/acceptable for the specific situation, the Data Acquisition Officer has one final set of determinations to make: Does the value of the data to be obtained justify the total cost associated with the acquisition? Sections 11 and 12 below are intended to help the Data Acquisition Officer make this determination. The particular form of the data agreement (i.e. contract, license, MOU/MOA, etc.) may include specific requirements for analyses to support this decision, and this instruction is not intended to serve as a substitute for these requirements, policies, or regulations (see section 13). Rather, this instruction introduces several factors which should be considered while making the determination to obtain the data to help assure that all factors affecting the costs and value of the data are considered.

11. Evaluating the True Cost. Some parts of the total or “true” costs to NWS/NOAA of obtaining data from external parties are straightforward, but others may be neither obvious nor easy to determine. Furthermore, some of these costs may depend on the terms/clauses (as described in section 9 above) of the data agreement itself. Components of the true cost include:

- Fees (any monetary compensation by NWS to the provider)
- Administrative costs (i.e. administering restrictions including hidden costs)
- Technology costs (i.e. telecommunications, storage, etc.)

- Exposure to risk (i.e. that damages might be sought if redistribution rights are not honored, even inadvertently)
- Non-monetary costs

Data Acquisition Officers should consider all of these costs, but they also need to balance the effort expended evaluating these costs with the importance of the data itself.

11.1 Fees. Fees are the easiest component of total cost to estimate – they are simply any actual payments²⁵ made by NWS to the provider for the data. However, acquisition of data from an external party can have a cost to NWS even if it involves no fee.

11.2 Administrative Costs. Administrative Costs involve the effort required to administer any restrictive terms in the data agreement, e.g. a data management system modification to separate the obtained data from other data in such a manner that NWS can assure that redistribution restrictions are honored. The point is to estimate the costs associated with any special processing or handling that must be developed to assure that NWS can and does honor any restrictive terms/clauses in the data agreement.

NOAA offices outside NWS may be affected by administrative costs if NWS obtains data on their behalf. For example, NCDC may be a service provider for data through their archival systems.

Data Acquisition Officers should be aware of hidden costs relating to administering restricted data agreements. For illustration, as part of the effort to improve the environmental modeling capability for NWS, we partner with academic researchers to improve the dynamics and physics packages of numerical models. As the non-governmental researchers work on improving these models and then work to transition the improved models to operations, there is a need to use data collected in our operational numerical modeling process to test and evaluate the utility of these developed models. For the vast majority of these data there are no restrictions on their dissemination. However, there are restrictions imposed by some data providers on redistribution based on proprietary rights or other limitations.

At present, NWS systems are not able to discriminate the freely available data from the restricted data resulting in restricting all the data from use by outside partners. The result is our research partners are not able to use the operational data streams in their developmental test and evaluation of their models. Therefore, the models cannot prove their operational utility in a timely manner resulting in additional resources required to fully evaluate the developed models. The additional time and resources required to perform this operational evaluation degrades our ability to transition research to operations – these delays and added costs due to the small quantity of restricted data are “hidden costs” for obtaining these data.

²⁵ Note that payment of a fee for *any* service will require conformance with NOAA’s Acquisition Policy (See section 13).

11.3 Technology Costs. Technology Costs are common to all of the data that NWS handles. A particular external acquisition may have extraordinary costs (e.g. establishing a new telecommunications connection or developing software to decode the data itself).

11.4 Exposure to Risk. Exposure to risk may be difficult to estimate, but should be considered at least in a qualitative fashion. Some of the administrative costs are intended to reduce the risk that some term/clause in the data agreement is not honored. However, any data agreement that includes restrictive terms will entail some risk that the provider will seek damages should NWS fail to honor those restrictions.

11.5 Non-Monetary Costs. Non-monetary costs apply whenever NWS offers some form of non-monetary consideration as part of the data agreement. The Data Acquisition Officer should estimate the costs to NWS of honoring these terms in the data agreement, and include this estimate as part of the total costs.

12. Determining Value Exceeds Cost. To justify a decision to obtain data from an external party, the Data Acquisition Officer must make a determination that the value of the data exceeds the cost of the data. Two fundamental approaches to making this determination are discussed below: examining costs of alternative sources and estimating value through expected improvements in NWS services.

12.1 Alternative Sources. It may be possible to estimate the costs of an alternative source of the data, and in such cases the Data Acquisition Officer should determine that the cost of the data from an alternative source exceeds the cost from the source being considered. For example, if an external party owns and operates an observing system that NWS could replicate at government expense, then the cost of the (hypothetical) government-owned and operated system can be estimated. Such estimates should include the *complete* costs (labor and capital) to develop, deploy, and operate a government alternative. It will not always be possible to hypothesize an alternative source since environmental data may be unique, (i.e. an external source may have proprietary rights to the methods used to produce the data). In such cases, there may be no reasonable way to estimate the cost of a government-owned alternative.

12.2 Value Through Improved Services. The impetus to obtain data from an external source is to improve the services that NWS provides. In evaluating the expected improvement in services, the Data Acquisition Officer should understand that the value of environmental data is usually cumulative in nature, i.e. one particular source of data is combined with other sources to produce better estimates/predictions of environmental conditions. The value of a particular source of data will typically appear in the form of a marginal improvement to one or more NWS products that provide some estimate of environmental conditions. Sometimes these improvements can be estimated directly, (e.g. by evaluating the performance of a model for the two cases where the particular source is added or withheld from the model's data assimilation system, or by assessing the capacity of human forecasters to improve products/services when the subject data is provided versus the baseline performance when the source is withheld). When the subject data is so unique in nature that some NWS service could not be provided at all without it, then the value of the service in an absolute sense may need to be estimated.

Putting these two approaches together, the Data Acquisition Officer needs to determine that (1)

the value of the external data to be obtained is worth the total cost of obtaining the data; and (2) there are no alternative sources for the data which can be obtained for less cost.

13. Implementing a Data Agreement. Data agreements can take many forms, but the principles regarding thoughtful establishment of the terms and conditions under which NWS obtains data from others apply regardless of the form of the data agreement. This section provides guidance regarding the approach the Data Acquisition Officer must take when implementing appropriate terms and conditions within various forms of data agreements, including the following:

- Contracts
- Licenses
- MOUs
- “Open source” / Copyright
- Grants / Coop Agreements
- Other agreements (CRADA, Joint Projects)

Sections below are dedicated to each of these forms.

13.1 Implementing Data Agreements With Contracts. Data agreements implemented in the form of contracts are subject to law, regulation, and policy including the following:

- NWS Policy Directive 1-11, “Acquisition Management” (<http://www.nws.noaa.gov/directives/sym/pd00111curr.pdf>)
- NWS Instruction 1-1101, “Acquisition Management Instruction,” (<http://www.nws.noaa.gov/directives/sym/pd00111001curr.pdf>)
- NOAA acquisition policies (<http://www.ago.noaa.gov/ad/policies.shtml>)
- Federal Acquisition Regulations (<http://www.acqnet.gov/far/>)

Data Acquisition Officers should be aware that other references apply to acquisitions and that all of the above references take precedence over the information contained in this instruction, (i.e. nothing in this instruction supersedes the legal, regulatory, or policy requirements associated with federal acquisitions). Within NOAA, the final authority on contract matters is the Director of NOAA’s Acquisition and Grants Office.

The Federal Acquisition Regulations (FAR) includes instructions regarding all phases of federal contracting from acquisition planning through contract negotiations and administration. FAR also include standard language intended for use in federal contracts to cover a wide variety of federal contracting situations, and these FAR clauses are often included by reference in federal contracts.

FAR clauses and instructions do address in general terms “rights in data” – for data acquired under federal contracts (e.g. see FAR subpart 27.4 and various FAR clauses in subpart 52-227

(in particular 52-227-14 and 52-227-17)). However, these standard FAR clauses do not address, in a comprehensive manner, specific concerns NWS may have with respect to acquisition of environmental data. Be prudent when using standard FAR clauses in NWS contracts that acquire environmental data. In particular:

- FAR Clause 52.227-17 “Rights in Data—Special Works,” should only be used when NWS seeks and the contractor agrees to unrestricted redistribution rights (as described in this instruction). See http://www.arnet.gov/far/current/html/52_227.html#wp1143685.
- FAR Clause 52.227-14 “Rights in Data—General,” can be used to create a general framework when NWS seeks and the contractor agrees to temporarily restricted or restricted redistribution rights (as described in this instruction). However, contract provisions other than this general FAR clause will be needed to describe in detail the terms and conditions under which the data is provided. See http://www.arnet.gov/far/current/html/52_227.html#wp1139363.

In addition to the two data right clauses cited in the preceding paragraph, there are additional FAR clauses applicable to data rights, copyrights, and patents, which may be appropriate depending upon the specific situation. In some instances, an appropriate clause does not exist for the specific intended purpose, and one must be developed.

Appendix E contains information extracted from a NWS contract used to acquire lightning data from a contractor under restricted redistribution terms.

13.2 Implementing Data Agreements with Licenses. A license is a form of permission to use data granted by the owner of the data to a prospective user of the data. If the license involves the payment of a fee for use, the authorities described in section 13.1 also may apply. From the perspective of a Data Acquisition Officer, the questions with regard to a license are much simpler: Is the license proposed by the data provider appropriate for NWS? This instruction provides guidance in making this determination. If the terms in the license are unclear, or the Data Acquisition Officer is unsure of whether the license terms are acceptable, contact the NWS Office of Strategic Planning and Policy for additional guidance.

If a license is deemed to be appropriate for NWS, a copy of the license must be retained as a record of the terms and conditions under which NWS has obtained the data. This is true even if the license is a “click through” for data obtained from a web site.

If a provider offers environmental data that is of interest to NWS, but under a license that is not acceptable, the Data Acquisition Officer should contact the Office of Strategic Planning and Policy for assistance in negotiating alternative language.

13.3 Implementing Data Agreements with MOUs. A Memoranda of Understanding/Agreement (MOU/MOA) can be an appropriate form of data agreement for obtaining data from other federal agencies with or without payment to those agencies, and from parties other than federal agencies when no payment is required. Data agreements which include payments to non-federal parties in return for environmental data should not use an MOU/MOA

(see section 13.1 on Contracts or Section 13.2 on Licenses).

Appendices contain examples of MOUs used by NWS to obtain environmental data.

13.4 Implementing Data Agreements under Open Source/Copyright. Many organizations make environmental data available openly on their web sites, but it is not always clear what terms of use apply to this data. Data Acquisition Officers have a responsibility to document the terms of use under which data is obtained even for “open source” data available to all openly on a web site.

Sometimes these terms of use are documented on the web site itself (Look for links to terms like “disclaimer” or “terms of use” or “policies”). For example, NWS documents the standard terms of use for information on National Weather Service web sites on its “disclaimer” page (<http://www.weather.gov/disclaimer.php>), the U.S. Geological Survey has a similar disclaimer page (<http://www.usgs.gov/laws/disclaimer.html>), and the Weather Underground web site has a “Terms of Use” page (<http://www.wunderground.com/members/tos.asp>).

If there is no apparent documentation of the terms and conditions under which open source data is offered, **Data Acquisition Officers should not assume that the data is provided under open and unrestricted terms just because it is available from a public web site.** Since provisions of copyright law may apply even if there is not an explicit reference to copyright on the web site, the Data Acquisition Officer will contact the provider to obtain an explicit statement of the terms and conditions for the data. A simple email to the web site is sufficient, for example:

“The National Weather Service (NWS) wishes to use data from your web site (<*insert URL here*>). Are there any limitations that apply to NWS use of this data, and, if so, what are they?”

The reply to such an email may serve as the data agreement for open source data.

If the Data Acquisition Officer has any questions regarding stated terms and conditions under which open source data is provided, contact the NWS Office of Strategic Planning and Policy for assistance.

13.5 Implementing Data Agreements with Grants / Cooperative Agreements. As is the case with contracts (section 13.1) there are explicit requirements in law, regulation, and policy which all NOAA grants/cooperative agreements are subject to and which take precedence over this instruction. **Within NOAA, the final authority on grants/cooperative agreements is the Director of NOAA’s Acquisition and Grants Office.**

It is not appropriate to use a grant or cooperative agreement for the primary purpose of obtaining environmental data for NWS (see section 13.1 on Contracts). However, grants and/or cooperative agreements may include provisions that have the effect of making environmental data available to NWS as a consequence of the agreement, making the issues addressed in this instruction relevant.

Grants/cooperative agreements may contain provisions under which NWS obtains environmental data directly or indirectly: direct provisions make the data available to NWS through the grant/cooperative agreement itself; indirect provisions require the grantee to make the data available to the public, allowing NWS to obtain the data under the same terms.

13.6 Implementing Data Agreements with Other Agreements (Cooperative Research and Development Agreements (CRADA), Joint Projects Agreements (JPA)). There may be cases where other types of agreements such as CRADA or JPA include provisions which make environmental data available to NWS. These are expected to be rare, and Data Acquisition Officers for such agreements should contact the NWS Office of Strategic Planning and Policy for guidance.

13.7 International Data Agreements. Data agreements with organizations outside the United States will follow the same principles and generally be implemented in one of the forms described above. In addition, some data is obtained from other governments under arrangements established by the World Meteorological Organization (WMO). Most of this WMO data is provided under 'open and unrestricted' terms as described in this instruction; however, some WMO data (termed 'additional data') is provided under restrictive terms. See URL: <http://www.nws.noaa.gov/tg/control.html>.

14. Recording a Data Agreement. The CIO will maintain a system to record data agreements, and Data Acquisition Officers are responsible for entering each data agreement they accept on behalf of NWS into this record keeping system. Instructions for use of this system can be found at: <https://bestpractices.nws.noaa.gov/contents/data_agreements>.

APPENDIX A - Data Rights Worksheet for Externally Obtained Data

Clause	Summary / Description	Required	Desired	Acceptable
<u>Redistribution Category (pick one of three)</u>				
1. Unrestricted	No Restrictions - preferred			
2. Temporarily Restricted	Allows redistribution of archived data			
3. Restricted	Redistribution allowed only if exemptions apply			
<u>Redistribution Exemptions (pick any that apply)</u>				
1. No restrictions on derivative products	Mandatory clause	Required		
2. When required by law	Mandatory clause	Required		
3. With express written permission	Strongly recommended			
4. Incidental	Recommended – allows occasional citations in NWS products			
5. Emergency (general)	Recommended – allows redistribution in emergencies such as toxic spills			
6. Federal Agency Redistribution	Recommended – at least to allow distribution throughout NOAA			
7. Redistribution for Non-Commercial Use	Avoid if it requires NWS to accept responsibility to determine whether any use is “non-commercial.” Use “with express permission” instead.			
8. Long-term expiration of restrictions	Recommended - causes all restrictions on redistribution to expire after 10 or more years.			
Non-Endorsement	Mandatory	Required		
Attribution of NWS use by provider	Acceptable if it is “just the facts” and is not required within body of NWS products			
Indemnification	Avoid since typical commercial indemnification clauses not legal for US Government – use alternative if needed.			
Non-exclusivity	Mandatory	Required		
Non-monetary compensation	Only in response to external party request			

APPENDIX B - AGREEMENT for OBTAINING UNRESTRICTED DATA *

AGREEMENT FOR NWS OBTAINING UNRESTRICTED DATA			
1.	Data Provider Point Of Contact		NWS Point Of Contact
Name:		Name:	
Location:		NWS Office:	
Phone:		Phone:	
2. NWS will acquire the data through:		Internet Address:	
3. Location of metadata (URL):			
3b. Details on type of metadata available (LAT?/LON?/Elevation?, name, etc.)			
4. Maintenance done on data collection platform by provider? (list any information available)			
5. Quality Control done on observations by provider? (list any information available)			
<p>GENERAL TERMS AND CONDITIONS</p> <p>DURATION OF AGREEMENT, AMENDMENTS, AND MODIFICATIONS</p> <p>This agreement is subject to the availability of funds. This agreement will become effective when signed by both parties. This agreement will terminate 5 years from the date it becomes effective, but it may be terminated, revised, amended, renewed, or extended for another 5 year period at any time by mutual consent of the parties. Either party may terminate this agreement by providing 30 days written notice to the other party. The Government reserves the right to terminate the agreement immediately at the convenience of the Government.</p> <p>RESOLUTION OF DISAGREEMENTS</p> <p>Should disagreement arise on the interpretation of the provisions of this agreement, or amendments and/or revisions thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement on interpretation is not reached within 30 days, then the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.</p> <p>All information in this agreement shall comply with Weather Service Instruction 1-1201. This agreement allows NWS to use the data without restriction and for any purpose. Any expenses associated with this agreement incurred by either signatory will remain exclusive to the signatory.</p>			
For the National Weather Service		For the Data Provider	
Signature	Date	Signature	Date
Name Title - printed		Name Title - printed	

* This sample agreement was taken from NWSI 1-1311 *Supplementary Observations and Complementary Data Sources and Networks*

APPENDIX C - Case Study: Weather Predict**2007****Memorandum of Understanding between
The National Weather Service
And
Weather Predict, Inc.****I. The Parties**

- A. The National Weather Service (NWS) is one of five line organizations within the National Oceanic and Atmospheric Administration (NOAA). NWS includes the Tropical Prediction Center/National Hurricane Center (TPC/NHC) as one of its operational elements.
- B. Weather Predict (WP) is a private company with headquarters in Raleigh, North Carolina, offering a variety of weather information services, including hurricane predictions generated using the super ensemble technology.

II. Purpose

This MOU is intended to make real-time hurricane track and intensity super ensemble forecasts for the North Atlantic and Eastern North Pacific Basin available to TPC/NHC for the 2007 Hurricane Season (encompassing the months of June – November, 2007) and for any out of season tropical cyclones occurring during the term of this MOU. The specific purpose of this MOU is to:

- A. Support NOAA missions by providing immediate operational use of the super ensemble forecasts to complement its existing information assets.
- B. Allow evaluation by TPC/NHC of WP super ensemble forecasts to support possible future activities of NOAA.
- C. Establish mutually agreeable network operations, security and quality control/assurance guidelines between TPC/NHC and WP.

III. Undertaking

For reasons beneficial to the parties, the parties agree to the following:

- A. WP will provide to TPC/NHC a feed of WP's super ensemble forecasts during the 2007 Hurricane Season and for any out of season tropical cyclones occurring during the term of this MOU. Upon request, and to the extent that WP is able to do so, WP will provide TPC/NHC and NWS with its Central Pacific forecast for the 2007 Hurricane Season. WP will provide this feed and data at no charge. NOAA recognizes and acknowledges the

proprietary nature of the WP forecasts, and agrees to honor the restrictions of use reflected herein.

- B. The use of the data provided hereunder will be restricted as provided below. Subject to III.D. below, permitted under this MOU will be necessary sharing of super ensemble forecasts or derivative products incorporating super ensemble forecasts provided under this MOU with NOAA's other line organizations.
- C. Subject to III.D. below, the data provided under this MOU may be used in any manner within NOAA, including incorporation within any information product or system of NOAA's other line organizations.
- D. NOAA will not disclose or redistribute super ensemble forecasts, nor any product incorporating super ensemble forecasts from which the original data can be readily extracted. This restriction on redistribution will not apply under the following circumstances:
 - a. NOAA may disclose or redistribute derivative products incorporating super ensemble forecasts in whole or part as long as such derivative products do not have sufficient information to readily retrieve the original content of the forecasts provided under this MOU. NOAA may freely describe its use of super ensemble forecasts in any such derivative products, but is not required to do so.
 - b. Threats to life, health, or property: NWS may reference data obtained under this MOU when incorporated into products which support public safety such as watches and warnings, even when such references occasionally disclose a limited and incidental amount of original data.
 - c. When required by law, provided that WP has been provided reasonable prior written notice.
 - d. When given prior, express written permission by the President of WP.
- E. NWS and WP will work jointly to determine data communication, data coding and formatting requirements, to ensure compatibility with NOAA systems so as to help facilitate the assimilation of such data by NOAA. Each party will bear its own costs associated with this effort.
- F. NWS will evaluate the WP super ensemble forecasts supplied under this MOU during and following the 2007 Hurricane Season as part of its normal process of evaluating all information sources. NWS will provide its evaluation to WP. NWS and WP will provide specific points of contact for developing and executing a plan for such evaluation. Without limiting the foregoing, TPC/NHC will use its good faith efforts to provide WP with general information about model updates and changes to TPC/NHC's requirements, and other feedback concerning WP's performance.
- G. WP and NOAA may issue joint, as well as individual, press releases announcing this MOU. Any public announcement by NOAA concerning or relating to products using or incorporating super ensemble forecasts may include an acknowledgement of WP in the body of the announcement. Any announcement that references the super ensemble

technology shall include an acknowledgement of WP in the body of the announcement. NOAA will provide WP with a copy of any such announcement(s) for its review prior to release by NOAA. Each party may reference this MOU in its own public announcements as appropriate. WP acknowledges the requirement to avoid language in its announcements that would reasonably imply an endorsement by NOAA, as described in Section IV, paragraph A, below.

- H. NWS and WP will explore, in good faith, options for TPC/NHC to receive real-time super ensemble forecasts for the 2008 Hurricane Season and beyond.

IV. Additional Understanding

- A. There shall be nothing in any program, announcement, or release that constitutes an endorsement, expressed or implied, by NOAA of WP and/or any commercial products it promotes or advertises. However, WP may publicly discuss and reference its relationship with NWS.
- B. Nothing in this MOU obligates NOAA or WP to commit or expend funds.
- C. NWS and WP recognize that this is a nonexclusive MOU and that NOAA and WP may enter into similar agreements with other entities without the consent or approval of the other. This MOU does not affect the rights and obligations the parties may have under any other agreement nor does it preclude other arrangements between the parties. Nothing herein obligates NOAA to provide any further information to WP that would not be made available to any other user of NOAA products or services. NWS acknowledges, however, cooperation and information from NWS and TPC/NHC may be needed in order to provide the forecasts requested hereunder. Without limiting the foregoing, TPC/NHC agrees to provide WP all data feeds it has provided Florida State University during prior hurricane seasons for the purposes of real-time super ensemble work in the same timely manner, subject to receipt of necessary third party consents.
- D. Nothing in this MOU conveys to NOAA or TPC/NHC or any other government entity any rights to the super ensemble technology or any other intellectual property or proprietary information of WP except with respect to the right to use forecasts as expressly provided herein. NOAA's rights to use the super ensemble forecasts are non-exclusive, and all rights not expressly granted herein are reserved.
- E. NOAA and TPC/NHC recognize the inherent uncertainties in any forecasting data. The super ensemble forecasts are provided on an "as is" basis, without any warranty, express or implied, or statutory, including, without limitation, any implied warranties of merchantability, fitness for NOAA and/or TPC/NHC purposes, accuracy, completeness or system integration. NOAA and TPC/NHC understand and agree that they assume the entire risk with respect to the use and results of the super ensemble forecasts. WP will not be liable for any indirect, consequential, incidental, punitive, special or exemplary damages (even if they have been advised of the possibility of such damages), such as, but

not limited to, loss of super ensemble forecasts or the costs of acquiring forecasts from other sources.

- F. In order to facilitate accomplishing the goals and objectives set forth in this MOU, WP and NWS agree to meet as appropriate to discuss issues of mutual concern and interest and assess progress in accomplishing the desired objectives.
- G. This MOU will remain in effect until January 31, 2008. Any party may terminate this MOU by a 120-day written notice of termination. NWS acknowledges that WP shall not be obligated to provide forecasts or data beyond the term of this MOU, absent further written agreement signed by the parties.
- H. The principal points of contact for activities under this MOU will be Edward Rappaport of TPC/NHC and Craig Tillman of WP.

IN WITNESS WHEREOF, the parties hereto execute this MOU, which becomes effective on the last date indicated below.

Weather Predict, Inc.

National Weather Service

<signed>
Craig Tillman, President of Weather Predict, Inc.

<signed>
David L. Johnson, Assistant
Administrator for Weather Services

23, May 2007
Date

23, May 2007
Date

Terms and Clauses in NWS MOU with WeatherPredict

Clause	WeatherPredict MOU Includes
<u>Redistribution Category</u>	
1. Unrestricted	
2. Temporarily Restricted	
3. Restricted	Yes - Section III B
<u>Redistribution Exemptions</u>	
1. No restrictions on derivative products	Yes -Section III C & D(a)
2. When required by law	Yes - Section III D(c)
3. With express written permission	Yes - Section III D(d)
4. Incidental	Yes - Section III D(b)
5. Emergency (general)	No
6. Federal Agency Redistribution	Yes (NOAA) - Section III B
7. Redistribution for Non-Commercial Use	NO
8. Long-term expiration of restrictions	NO
Non-Endorsement	Yes -Section IV A
Attribution of NWS use by provider	Yes -Section III D(a) and G -Section IV A
Indemnification	No (In addition, NOAA agreed to hold WeatherPredict harmless. Section IV E)
Non-exclusivity	Yes -Section IV C
Non-monetary compensation	Yes -Section III E & F

APPENDIX D - Case Study: Weather Flow**Memorandum of Understanding between
WeatherFlow, Inc.
And
The National Weather Service****I. The Parties**

- A. The National Oceanic and Atmospheric Administration (NOAA) includes the National Weather Service (NWS) as one of five line organizations. NWS is the NOAA signatory to this agreement because it is the NOAA line organization that has mission responsibilities most closely associated with the overall purpose of the agreement.
- B. WeatherFlow, Inc. operates real-time weather sensor networks and associated data collection and dissemination technology, and is in the process of designing and installing a network of at least 100 weather stations in the Eastern US and US Gulf Coast expressly to capture hurricane force winds (Hurricane Mesonet). It is the WeatherFlow Hurricane Mesonet which is the subject of this agreement.

II. Purpose

This Memorandum of Understanding (MOU) is intended to strengthen the existing partnership between NWS and WeatherFlow. The specific purpose of this MOU is to:

- A. Support NOAA missions by providing agency-wide use of data from the WeatherFlow Hurricane Mesonet to complement its existing data collection assets.
- B. Mutually develop a plan to evaluate the potential applications and value of WeatherFlow Hurricane Mesonet data.
- C. Allow immediate use by NOAA of WeatherFlow Hurricane Mesonet data.
- D. Establish mutually agreeable network operations and quality control/assurance guidelines.
- E. Expanding the NWS/WeatherFlow public/private partnership in a legal and appropriate manner.

III. Undertaking

For reasons beneficial to both parties, the parties agree to the following:

- A. WeatherFlow will provide to NWS a feed of WeatherFlow proprietary data. WeatherFlow will provide this feed to NWS at no charge. WeatherFlow will incur all costs associated with collecting and delivering the data to the designated NWS recipients. NWS recognizes and acknowledges the proprietary nature of the WeatherFlow data, and agrees to honor the restrictions of use reflected herein.

- B. The use of the data provided hereunder will be restricted as provided below. Permitted under this MOU will be necessary sharing of WeatherFlow data or derivative products incorporating WeatherFlow data with NOAA's other line organizations and other appropriate government agencies for furtherance of the NOAA mission. It is understood and agreed that NWS will take appropriate steps to ensure that such agencies are aware of, and agree to abide by, the restrictions on re-distribution reflected herein.
- C. It is expressly understood and agreed that NWS will make the WeatherFlow data available to NOAA generally, including the Office of Oceanic and Atmospheric Research (OAR), and its Hurricane Research Division as may be required for specific joint research programs. A joint research program is one that involves both NOAA and WeatherFlow scientists in studies intended to employ WeatherFlow data to develop and improve products intended for future operational use. Such programs, if undertaken, shall be memorialized in a written agreement(s) which shall set forth the rights, duties and obligations of the parties thereto. Nothing in this paragraph shall be construed to limit any NOAA organization from access to the data, if requested.
- D. The data provided under this agreement may be used in any manner within NOAA, including incorporation within any information product or system of NOAA's other line organizations.
- E. NOAA will not redistribute WeatherFlow data, nor any product incorporating WeatherFlow data from which the original data can be readily extracted. This restriction on redistribution will not apply under the following circumstances:
 - a. NOAA may redistribute derivative products incorporating WeatherFlow data in whole or part, without attribution, as long as such derivative products do not have sufficient information to readily retrieve the original content of the WeatherFlow data provided under this agreement.
 - b. In cases of emergencies, NOAA may distribute WeatherFlow data, in raw form or otherwise, to others as it deems appropriate under the circumstances. In all cases of such distribution of data, NOAA will notify WeatherFlow of the circumstances of such distribution as soon as is practical.
 - c. Threats to life, health, or property: NWS may utilize data obtained under this agreement, with good faith efforts to provide attribution to "WeatherFlow Mesonet" generally, when incorporated into products which support public safety such as watches and warnings, even when such references allow the original data to be extracted.
 - d. When required by law.
 - e. When given express written permission.
- F. NOAA reserves the right to archive data as transmitted and/or received by NOAA from WeatherFlow for use within NOAA. Archived data will be subject to the same restrictions on use embodied in paragraph III.E above.

- G. Initially, WeatherFlow will provide data in the Hourly Metar format with more frequent updates as communication systems allow. WeatherFlow will provide data in a standard format to help facilitate the assimilation of such data into NOAA models, such as plume dispersion models, as appropriate. This agreement does not anticipate any customization of the WeatherFlow data feed and each party will bear its own costs associated with these efforts. NWS will evaluate the data supplied under this agreement, and provide feedback to WeatherFlow regarding data quality as appropriate. The parties agree to collaborate and cooperate to optimize the quality of WeatherFlow data.
- H. WeatherFlow will coordinate with NWS and other appropriate government agencies so as to maximize the usability of WeatherFlow real-time data in all applications.
- I. WeatherFlow and NWS will cooperate, as appropriate, to increase public awareness, preparedness, and understanding of Homeland Security threats.
- J. NOAA recognizes the need for monitoring meteorological conditions within immediate coastal areas for a variety of applications that support NOAA's tropical storm and hurricane services, including forecast preparation, aid in issuance of watches and warnings, and verification of NOAA's forecasts, watches, and warnings. NOAA further recognizes the special value of such data from sites that have been "hardened" to provide reliable data during extreme conditions and from sites that have been carefully located to provide observations that are representative of conditions within immediate coastal areas.
 - a. Subject to Section V, paragraph A below, WeatherFlow may describe NOAA's expected use of the WeatherFlow Hurricane Mesonet data to prospective observing site hosts.
- K. The parties will explore incorporating WeatherFlow data into additional NOAA models and applications.
- L. WeatherFlow and NOAA may issue joint, as well as individual, press releases announcing this agreement and the planned public-private partnership. Any public announcement by NOAA concerning or relating to products using or incorporating WeatherFlow data shall include an acknowledgement of WeatherFlow in the body of the announcement. Each party may reference the partnership in its own public announcements as appropriate. WeatherFlow acknowledges the requirement to avoid language in its announcements that would reasonably imply an endorsement by NOAA, as described in Section V, paragraph A, below.
- M. NWS and WeatherFlow will provide specific points of contact for developing and executing a plan for evaluation of the use of WeatherFlow data in the NOAA line organizations.

IV. Governing Law

NWS enters into this Agreement pursuant to 15 USC 313.

V. Additional Understanding

- A. There shall be nothing in any program, announcement, release, or other written or verbal communication that constitutes an endorsement, expressed or implied, by NOAA of WeatherFlow and/or any commercial products it promotes or advertises.
- B. Nothing in this agreement obligates NOAA or WeatherFlow to undertake any specific level of activity or to commit or expend funds.
- C. WeatherFlow will maintain complete control of its operation. Nothing in this agreement shall be interpreted as affording NOAA any role in WeatherFlow data collection or distribution decisions.
- D. NWS and WeatherFlow recognize that this MOU is a nonexclusive agreement and that NOAA or WeatherFlow may enter into similar agreements with other entities without the consent or approval of the other. Nothing herein obligates NOAA to provide any further information to WeatherFlow that would not be made available to any other user of NOAA products or services.
- E. In order to facilitate accomplishing the goals and objectives set forth in this MOU, WeatherFlow and NWS agree to meet as appropriate to discuss issues of mutual concern and interest and assess progress in accomplishing the desired objectives.
- F. NWS and WeatherFlow shall review and assess the effectiveness of this Memorandum of Understanding annually. Thirty days prior to this annual review, the parties shall provide each other with a status report covering the cooperative activities under this MOU specifying those requiring discussion at the review. Amendments to this MOU may be made at any time by written agreement of the parties.
- G. This MOU shall remain in effect for a period of two years beginning on the date of the latest signature below. Thereafter, the parties may extend the term of the agreement on an annual basis by mutual agreement. Either party may terminate the MOU by a 30-day written notice of termination.
- H. The principal points of contact for activities under this MOU shall be James O'Sullivan of NWS and Jay Titlow of WeatherFlow.

IN WITNESS WHEREOF, the parties hereto execute this Memorandum of Understanding, which becomes effective on the date indicated below.

WeatherFlow, Inc.

NWS

<signed>
Buck Lyons, CEO

<signed>
David L. Johnson, Assistant

Administrator for Weather Services

12 November 2006

Date

12 November 2006

Date

Terms and Clauses in NWS MOU with WeatherFlow

Clause	WeatherFlow MOU Includes
<u>Redistribution Category</u>	
1. Unrestricted	
2. Temporarily Restricted	
3. Restricted	Yes - Section III A & B
<u>Redistribution Exemptions</u>	
1. No restrictions on derivative products	Yes - Section III D & E(a)
2. When required by law	Yes - Section III E(d)
3. With express written permission	Yes - Section III E(e)
4. Incidental	Yes - Section III E(c)
5. Emergency (general)	Yes - Section III E(b)
6. Federal Agency Redistribution	Yes (NOAA & Other Appropriate Government Agencies) - Section III B & C
7. Redistribution for Non-Commercial Use	NO
8. Long-term expiration of restrictions	NO
Non-Endorsement	Yes - Section III L & Section V A
Attribution of NWS use by provider	Yes - Section III J(a) & L
Indemnification	NO
Non-exclusivity	Yes - Section V D
Non-monetary compensation	Yes - Section III G

APPENDIX E - Case Study: Lightning Data Contract

NOAA serves as the purchasing agent for lightning data for several Federal agencies (Departments of Commerce, Defense, Transportation, Interior, Agriculture, and NASA). This data is provided by a commercial supplier under a federal contract. This appendix extracts content of the Lightning Data Contract (Contract) which is relevant to this instruction.

The Contract includes various Federal Acquisition Regulations (FAR) clauses including FAR Clause 52.227-14 “Rights in Data—General” which provides the general framework for the terms of use of the lightning data provided by the Contract. In addition, the Contract has several sections which provide additional detail, consistent with this instruction, of the terms of use of these data. Language used in the Contract is excerpted below and related to the terms described in the instruction.

Section C of the Solicitation, “Description/Specifications/Work Statement,” contains a Section 1.3 “Government/Participating Agency Data Rights,” which is directly relevant as excerpted below:

No restrictions on derivative products:

“The data provided under this contract may be used in any manner by the NWS or other participating agencies covered under this contract, including incorporation within any other information product or system of NWS/participating agencies, and redistribution in whole or part without attribution as incorporated into other NWS/participating agencies derivative products as long as such derivative products do not have sufficient information to retrieve the original content of the data provided by this contract”.

When required by law:

“Unless required by law, NWS/participating Government agencies will not redistribute data provided from the offeror under this contract, or derivative products from which this originally transmitted data can be recovered, without express written permission of the contractor”

With express written permission:

Unless required by law, NWS/participating Government agencies will not redistribute data provided from the offeror under this contract, or derivative products from which this originally transmitted data can be recovered, without express written permission of the contractor.”

With these general terms of use defined in section 1.3, the Contract has an elaborate description of various “levels” of lightning data which are used to describe the redistribution rights of the participating government agencies. In terms of the concept of “derivative products” introduced in the instruction, “levels” I, II, III, and IV are all products that DO “have sufficient information

to retrieve the original content of the data provided by this contract,” while level V products do not.

Further in Section 7.7 “Redistribution Rights,” the Contract describes the right of the participating government agencies to redistribute data, with separate subsections for real-time distribution and distribution of archived data.

Federal Agency Redistribution (real-time)

7.7.1. Redistribution of Real-Time Data:

Level I, II, III, and IV Data - Government may redistribute Level I, II, III, and IV Data to any participating agencies and to any organization with which a participating agency has a cooperative or working arrangement. Organizations that may receive data include other Government agencies (federal, state, and local), contractors, and other cooperating organizations. Data may be distributed to organizations in foreign countries with which cooperative arrangements have been established. Data may be included in scientific papers or journal articles. Internet redistribution is allowed to participating agencies through secure internet connections that deny access to unauthorized organizations or individual

Level V Data - Government may freely distribute the Level V Data to any user.

In effect, these contract clauses allow all participating government agencies to redistribute “derivative products” as used in this instruction (i.e. the Level V data) while restricting redistribution of products from which the contractor data can be readily extracted (i.e. Level I, II, III, IV Data).

In addition to defining the participating government agencies who receive data under this Contract, the Contract has an explicit definition of other parties who have the right to receive the data because of the special relationship with these participating agencies.

1.6.2.2. NON-GOVERNMENT USERS

There are also non-government organizations cooperating with Federal Government agencies receiving lightning data. These include cooperating organizations and contracting entities. Cooperating organizations are organizations with a cooperative working relationship with one or more Government agencies. Contracting entities are organizations that have contracts with one or more of the sponsoring agencies to perform a task for the Government. The tasks may involve operational use of lightning data or research. Cooperating organizations and contracting entities may receive Level I, II, III, IV, or V lightning data under this SOW. The data may be received from the sponsoring Government agency or directly from the offerer. The Government will identify to the offerer all cooperating organizations and contracting entities receiving lightning data.

Third party contractors may receive lightning data under this SOW. Third party

contractors are contractors that receive lightning data and retransmit it to Federal Government agencies covered by this SOW. A third party contractor may also generate Level III, IV or V lightning data and transmit them to Federal Government agencies. Third party contractors are not lightning data users. They act only as communication companies or companies that generate Level III, IV or V lightning data for Federal Government agencies.

Example - A company receives Level I lightning data from the offerer. The company then generates Level III data and transmits them to a Federal Government agency.

This Contract has fairly elaborate provisions regarding archived lightning data, including provisions which are conditional on whether or not the contractor chooses to archive the data and redistribute it to others. These provisions are included below for reference.

6. Archived Data

Archived lightning data is any lightning data more than 24 hours old. Archived data may be in hardcopy or electronic form.

6.1. Level I And II Data

The offerer may archive Level I and II data in the form it is transmitted to the Government and in a quality controlled form. If the offerer elects not to archive Level I data in the as transmitted form, the Government reserves the right to archive the data. If the offerer does archive Level I data in the as transmitted form the Government will not archive the same data. The Government will not archive Level II data.

6.2. Level III, IV And V Data

The Government reserves the right to archive Level III, IV, and V data.

6.3. Offerer's Archive

The offerer shall state the length of time lightning data is retained in its archive. If the offerer plans to dispose of any data from its archive, the offerer shall offer the data to the Government before disposing of it.

The offerer shall make archived data available on CDs for each geographic zone on a monthly basis. Government agencies will not distribute these CD beyond the agency procuring them except that CDs may be distributed to organizations with cooperative agreements.

6.4. GOVERNMENT ARCHIVE

The Government may archive data in individual agency archives, at the user and receiver sites, or in the permanent national archive at NOAA's National Climatic Data Center (NCDC). NASA uses lightning data to support its ground operations such as the testing of spacecraft and propellants and to support space craft launch and recovery operations. Lightning data is used to support space shuttle operations; including launch, reentry, landing, and transport.

7.7.2. Redistribution of Archived Data:

Level I Data - If level I data is archived at NCDC (see Section 6.1) it may be disseminated to the participation agencies and to any other organization that request the products through a participating agency. Participating agencies may disseminate archived Level I data to the agencies included in the contract and to cooperating organizations. Internet redistribution is allowed to participating agencies through secure internet connections that deny access to unauthorized organizations or individuals.

Level II Data - NCDC will not archive or disseminate Level II data. Participating agencies may disseminate archived Level II data to the agencies included in the contract and to cooperating organizations. Internet redistribution is allowed to participating agencies through secure internet connections that deny access to unauthorized organizations or individuals.

Level III and IV Data - NCDC may redistribute archived Level III and IV data participation agencies and to any other organization that request the products through a participating agency. Participating agencies may disseminate archived Level III and IV Data to the agencies included in the contract and to cooperating organizations. Internet redistribution is allowed to participating agencies through secure internet connections that deny access to unauthorized organizations or individuals.

Level V Data - NCDC and participating agencies and may freely distribute the archived Level V Data to any user.

Terms and Clauses in Lightning Data Contract

Clause	Lightning Data Contract Includes
<u>Redistribution Category</u>	
1. Unrestricted	
2. Temporarily Restricted	
3. Restricted	Yes - FAR Clause 52.227-14 & Section 1.3
<u>Redistribution Exemptions</u>	
1. No restrictions on derivative products	Yes - Section 1.3
2. When required by law	Yes - Section 1.3
3. With express written permission	Yes - Section 1.3
4. Incidental	NO
5. Emergency (general)	NO
6. Federal Agency Redistribution	Yes (NOAA & Other Appropriate Government Agencies) - Section 7.7.1 & 7.7.2
7. Redistribution for Non-Commercial Use	Yes - Section 1.6.2.2
8. Long-term expiration of restrictions	NO
Non-Endorsement	NO
Attribution of NWS use by provider	NO
Indemnification	NO
Non-exclusivity	NO
Non-monetary compensation	NO