

Thank you for your decision to inter-calibrate your research with the World Meteorological Organization [WMO] community.

Please note;

I have attached a purchasing document [MOU]. We require **all fields in red to be completed** and **two signed MOUs mailed to me at the address below.**

Purchaser **MUST** complete the text in **red** in this document or it cannot be accepted. **Two original signed MOUs must be MAILED to the technical contact, Duane Kitzis, or the project cannot be accepted or started.** We cannot accept email or fax as a legal document. **We cannot accept any other revisions to this document.**

Complete the following red text;

- Purchaser, Invoice contact name and address on the first page,
- DUN and Bradstreet Number, and Taxpayer ID on first page info required for all U. S. Sponsors
- DUN, EIN, ALC, OMB Max Code, TAS, BETC codes on first page – info required for all Government Sponsors.
- Section 4, Name, telephone and complete shipping address of purchaser,
- Section 6, Technical and administrative points of contact for this agreement,
- Section 8, Signature and signatory information,
- Page 9 – Certification Form, Sections 543 and 544. Sections 543 and 544 prohibit the Department from using FY 2012 funds to enter into an MOU (or contracts, grants, loans or loan guarantees) with any sponsor that has any unpaid Federal tax liability or has been convicted of a felony criminal violation under any Federal law within the preceding 24 months. Pub. L. No. 112-55, 125 Stat. 552, 640.
- Certification of Corporation Intending to Enter into a Memorandum of Understanding with the Department of Commerce, signature and institution name.

If you have any questions email me, Duane Kitzis, [duane.r.kitzis@noaa.gov](mailto:duane.r.kitzis@noaa.gov)  
**I cannot accept the work to make your standards until I have received two hard copies of this completed document.**

Duane R. Kitzis

National Oceanic and Atmospheric Administration (NOAA)

Global Monitoring Division (GMD)

Carbon Cycle Group

325 Broadway – R/GMD1

Boulder, CO 80305, USA

Phone: 303-497-6675

Fax: 303-497-6290

E-mail: [duane.r.kitzis@noaa.gov](mailto:duane.r.kitzis@noaa.gov)

Web Site: <http://www.cmdl.noaa.gov/ccgg>

**MEMORANDUM OF UNDERSTANDING**

**THROUGH WHICH**

**[Name of non-federal sponsor]**

**IS PURCHASING**

**Trace Gas Air Standards**

**FROM**

**Earth System Research Laboratory (ESRL)**

**Global Monitoring Division (GMD)**

**Office of Oceanic and Atmospheric Research (OAR)**

**National Oceanic and Atmospheric Administration (NOAA)**

**U.S. Department of Commerce (DOC)**

**Agreement No:** \_\_\_\_\_

**Contact Name and Address that NOAA should send invoices to:**

[Sponsor's invoice contact person]

[Title of sponsor's invoice contact person]

[Address where invoice should be sent to sponsor]

Phone: [phone number of sponsor's invoice contact person]

Fax: [fax number of sponsor's invoice contact person]

E-mail: [E-mail address of sponsor's invoice contact person]

**FOR U.S. SPONSORS ONLY:**

**Dun & Bradstreet No:**

**Tax Payer ID No:**

<b>NOAA ESRL GMD ACCNT INFORMATION</b>
<b>DUNS/BPN:</b> 162008767
<b>EIN:</b> 84-1040636
<b>ALC:</b> 13-14-0001
<b>OMB Max Code:</b> 006-48
<b>TAS:</b> 13X1450
<b>BETC:</b> COLL

## **1. PARTIES AND PURPOSE**

This Memorandum of Understanding (MOU) establishes an agreement between [name of sponsor] and Earth System Research Laboratory, Global Monitoring Division<sup>1</sup> (ESRL/GMD), through which Non Federal sponsors will pay ESRL/GMD for calibrated trace gas air standards, including shipping and handling.

## **2. BACKGROUND**

High precision measurements of the trace gases CO<sub>2</sub>, CH<sub>4</sub>, CO, N<sub>2</sub>O, and SF<sub>6</sub> are being undertaken by many laboratories of various nations in order to better understand the emissions and biogeochemical cycles of these gases. There can be no integration of all these various measurement projects unless the data are referenced to common well-defined calibration scales. The consistency required for optimally usable atmospheric CO<sub>2</sub> measurements and intercomparison must be no worse than 0.1 umol/mol for the northern hemisphere and 0.05 umol/mol in the southern hemisphere [World Meteorological Organization (WMO), 1993]. Because of stringent quality controls necessary for the measurement of long-lived trace gases, stable reference gas standards are an integral part of any long-term measurement program.

ESRL GMD serves as the Central Calibration Laboratory for the WMO Global Atmosphere Watch. In this role, GMD maintains and distributes gas standards for CO<sub>2</sub>, CH<sub>4</sub>, CO, N<sub>2</sub>O, and SF<sub>6</sub> for atmospheric monitoring. The need for gas standards at ambient mixing ratios has not been filled by a private company or corporation demonstrating the desired level of consistency over time.

The [Greenhouse Gas Global Reference Network](#)<sup>2</sup> group (GGGRN) of ESRL/GMD has been involved with making CO<sub>2</sub> standards since the early 1970s [Miller, 1974] and over the years has expanded to include methane, carbon monoxide, and the stable isotopes of CO<sub>2</sub>. GGGRN can fill and calibrate compressed gas cylinders for use as standard reference gases by other laboratories for measurements of CO<sub>2</sub>, CH<sub>4</sub>, CO, and the stable isotopes of CO<sub>2</sub> (<sup>13</sup>C and <sup>18</sup>O).

## **3. AUTHORITY**

The authorities for ESRL/GMD to enter into this agreement are:

- (1) The "Special Studies" authority, 15 U.S.C. § 1525 (first paragraph), which permits DOC to provide, upon the request of any person, firm, or public or private organization (a) special studies on matters within the authority of the Department of Commerce, including preparing from its records special compilations, lists, bulletins, or reports, and (b) furnishing transcripts or copies of its studies, compilations, and other records.

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<sup>1</sup> <http://www.esrl.noaa.gov/gmd/>

<sup>2</sup> <http://www.esrl.noaa.gov/gmd/ccgg/index.html>

(2) 33 U.S.C. § 883d, which authorizes NOAA to increase engineering and scientific knowledge by conducting developmental work for the improvement of surveying and cartographic methods, instruments, and equipments; and to conduct investigations and research in geophysical sciences (including geodesy, oceanography, seismology, and geomagnetism).

#### **4. TERMS AND CONDITIONS**

ESRL/GMD will achieve full cost recovery for the goods and services it is providing under this agreement.

Sponsor assumes responsibility for the safe handling of compressed gas cylinders upon the receipt of cylinders from ESRL/GMD.

Compressed Gas Cylinders are regulated by U.S. Law under CFR Title 49, parts 106-179.

This Agreement is subject to the availability of funds.

##### **Standards:**

Unless otherwise stated, cylinder is size N150, 29.5 liter internal volume, Ceodeux brass packless, CGA590 valved.

##### **Logistics for services are:**

4-6 weeks to fill.

4-6 weeks to calibrate per trace gas species.

Isotopes may take an additional 3 months.

Standard turn around time varies due to seasonal logistics and calibration queue.

##### **Standards will be delivered to:**

[Sponsor must state the name, address, phone, fax, and e-mail of who and where the standards are to be shipped] **INCLUDE IMPORTATION BROKER CONTACT INFORMATION IF THERE IS ONE.**

##### **Return Shipping and handling:**

##### **DAP – Delivered at Place (named place of destination)**

Seller pays for carriage to the named place, except for costs related to import clearance, and assumes all risks prior to the point that the goods are ready for unloading by the buyer. Import clearance = import duty and VAT and not the Import Customs Clearance. There is no seller obligation for import clearance.

*One recalibration for CO<sub>2</sub>, CH<sub>4</sub>, CO, N<sub>2</sub>O/SF<sub>6</sub> after use is included in the cost of the standard gas. THIS IS HIGHLY RECOMMENDED EVERY 3 YEARS FOR PRECISION WORK AND SHOULD AT LEAST BE PERFORMED AT THE END OF THE CYLINDER'S USE [20 atm pressure].*

ESRL/GMD will provide calibration of gases to sponsor who will pay ESRL/GMD in advance for its services, based on the following price table:

<b>SERVICE</b>	<b>COST</b>	<b>UNIT</b>	<b>QTY</b>	<b>TOTAL</b>
N150 Al cylinder, 29.5 liter, none or one gas targeted	\$1,002.00	Each		
Multi-species targeting	\$76.00	Each		
N150 Aluminum A CULIFE cylinder, 29.5 liter volume, filled	\$1,648.00	Each		
CO2 WMO scale inside NDIR Range 250-500 PPM	\$1,114.00	Each		
CO2 WMO scale outside NDIR Range 250-500 PPM	\$1,303.00	Each		
CH4 RANGE 300-4000 PPB	\$780.00	Each		
CO RANGE 40-500 PPB	\$780.00	Each		
Stable Isotopes of CO2 [C13 & O18]	\$780.00	Each		
N20 RANGE 100-360 PPB, SF6 RANGE 1-10 PPT	\$721.00	Each		
Calibration for CFCs by ECD	\$721.00	Each		
Calibration for halomethanes by GCMS	\$876.00	Each		
Shipping and handling – U.S. Mainland	\$155.00	Each		
Shipping and handling – Outside the U.S. Mainland	\$297.00	Each		
Financial Management Service Collection Cost *	\$1.19	Each	1	\$1.19
<b>Additional recalibrations Price (US Dollars):</b>	<b>\$310.00</b>	Each		
				<b>AMOUNT DUE</b>
<b>TOTAL AMOUNT OF PAYMENT TO ESRL/GMD</b>				<b>\$</b>

\* Required on all agreements by the Department of Treasury per Office of Management & Budget Circular A-25, Policy Memorandum 14-02 dated July 25, 2014.

## **5. TRANSFER OF FUNDS**

Payment is required in advance of, or simultaneously with, the rendering of goods or services provided by ESRL/GMD.

Sponsor is responsible for all payment transfer fees and costs.

To purchase from ESRL/GMD, two original signed copies of this “Memorandum of Understanding”, along with payment or appropriate funding document should be mailed to the ESRL/GMD Technical Contact listed in the contact section below.

Payment should reference project number 36R1MYYPPT (Kitzis) or 36R1MXBPEL (Hall), as appropriate, and be made in US dollars payable to NOAA/DOC.

If you are unable to make payment upon submission of signed MOU, you will receive a NOAA invoice. NOAA will invoice sponsor for the full amount of goods or services upon receipt of the fully signed MOU. Sponsor is expected to make payment upon receipt of the NOAA invoice by check according to the Invoice instructions, or electronic payment can be made according to Attachment A instructions.

All funding documents, if submitted, **must** contain the following information:

- All costs shown in U.S. Dollars,
- All text in English,
- A clear description of goods and services being paid for,
- Clear invoicing and ship to (standards delivered to) instructions along with names, addresses, phones, faxes and email addresses.
- Funding document should reference project number 36R1MYYPPT (Kitzis) and be made payable in US dollars to NOAA/DOC.

### **For U.S. Sponsors only:**

- Employer Identification Number(s),
- Dun & Bradstreet Number(s),

## 6. CONTACTS

The technical points of contact for this agreement are:

Duane Kitzis/GGGRN  
Earth System Research Laboratory (ESRL)  
Global Monitoring Division (GMD)  
National Oceanic and Atmospheric Administration (NOAA)  
325 Broadway – R/GMD1  
Boulder, CO 80305, USA  
Phone: 303-497-6675 (Kitzis)  
303-497-7401 (Hall)  
Fax: 303-497-6290  
E-mail: [duane.r.kitzis@noaa.gov](mailto:duane.r.kitzis@noaa.gov) or

Web Site: <http://www.esrl.noaa.gov/gmd/ccgg/index.html> (GGGRN)  
<http://www.esrl.noaa.gov/gmd/hats/> (HATS)

[Sponsor's technical contact person]  
[Title of sponsor's technical contact person]  
[Address of sponsor's technical contact person]  
Phone: [phone number of sponsor's technical contact person]  
Fax: [fax number of sponsor's technical contact person]  
E-mail: [E-mail address of sponsor's technical contact person]

Fiscal and budgetary communications can be directed to:

Bill Cushman  
Administrative Officer  
ESRL/GMD  
325 Broadway – R/GMD  
Boulder, CO 80305, USA  
Phone: 303-497-6074  
Fax: 303-497-5590  
E-mail: [bill.cushman@noaa.gov](mailto:bill.cushman@noaa.gov)

[Sponsor's fiscal and budget contact person]  
[Title of sponsor's fiscal and budget contact person]  
[Address of sponsor's fiscal and budget contact person]  
Phone: [phone number of sponsor's fiscal and budget contact person]  
Fax: [fax number of sponsor's fiscal and budget contact person]  
E-mail: [E-mail address of sponsor's fiscal and budget contact person]

The parties agree that if there is a change regarding the information in this section, the party making the change will notify the other party in writing of such change.

## **7. DURATION OF AGREEMENT, AMENDMENTS AND MODIFICATIONS**

This agreement will become effective when signed by both parties. The agreement will terminate when the sponsor receives all materials and analysis results, but no later than three years from the effective date. This agreement may be amended at any time by mutual written consent of the parties

Any party may terminate this agreement by providing thirty days written notice to the other party. In the event of termination, all amounts unexpended by ESRL/GMD as of the date of ESRL/GMD's receipt of a notice of termination from the sponsor, or as of the date of ESRL/GMD's sending a notice of intent to terminate to the sponsor, shall be promptly refunded to sponsor, less any amounts required to close the account.

## **8. RESOLUTION OF DISAGREEMENTS**

Should disagreements 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 or interpretation is not reached within 30 days, the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.

If a dispute related to funding remains unresolved for more than 30 calendar days after the parties have engaged in an escalation of the dispute, disputes will be resolved in accordance with instructions provided in the Treasury Financial Manual (TFM) Volume I, Part 2, Chapter 4700, Appendix 10, available at <http://www.fms.treas.gov/tfm/index.html>.

## **9. SIGNATURES**

\_\_\_\_\_  
[Signature of person who has authority  
to bind sponsor to the agreement]

[Typed name]

[Typed title]

[Typed name]

[Typed address]

\_\_\_\_\_  
Date

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Jason Donaldson  
Chief, Financial Officer/CAO  
Mail Code: R  
Office of Oceanic and Atmospheric Research  
National Oceanic and Atmospheric Administration  
U.S. Department of Commerce  
1315 East West Highway  
Silver Spring, MD 20910, USA

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Date

Certification of Company Intending to Enter into a Memorandum of Understanding with  
the Department of Commerce

I, the undersigned, do hereby certify that my business [name of company] :  
(1) was not convicted of a felony criminal violation under any Federal law within the preceding 24 months, and (2) does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

\_\_\_\_\_  
*[signature of person who has authority to certify on behalf of the company]*

*[typed name of the signing individual]*

*[typed title of the signing individual]*

*[typed name of company]*

*[typed phone number of the signing individual]*

*[typed email address of the signing individual]*

\_\_\_\_\_  
*[date]*

**(ATTACHMENT A)**

Please be sure to include within the funds transfer identifying information linking the payment to the invoice, i.e., ESRL/NOAA invoice#, Agreement #, Funding document #, and Project # as referenced in Part 4 of this agreement.

**If there are problems completing the bank transfer, contact Ruth Ann Bond at [Ruth.Bond@noaa.gov](mailto:Ruth.Bond@noaa.gov) for funds transfer assistance.**

**Please note that these are 2 distinct methods of electronic funds transfers—account numbers, etc., are different and unique for both methods.**

**(1) INSTRUCTIONS FOR FED WIRE FUNDS TRANSFER – TYPE 1000**

**THIRD PARTY FUNDS TRANSFER MESSAGE  
TO TREASURY NYC**

<b><u>TAG NAME</u></b>	<b><u>TAG #</u></b>	<b><u>REQUIRED INFORMATION</u></b>
TYPE/SUBTYPE CODE	(1510)	1000
AMOUNT	(2000)	\$9,999,999.99
SENDER FI	(3100)	123456789 BANK XYZ (SENDER ABA# AND NAME)
SENDER REFERENCE (3320)		(FILLED IN BY SENDER)
RECEIVER FI	(3400)	ABA #021030004 TREAS NYC
BENEFICIARY	(4200)	D 13140001 (Account #) NOAA (Account name)
ORIGINATOR TO BENEFICIARY INFO	(6000)	ESRL/GMD Project 36R1M

SWIFT CODE FRNYUS33 can be used if required.

Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**or**

**(2) INSTRUCTIONS FOR ACH (AUTOMATED CLEARANCE HOUSE) FUNDS TRANSFER**

ABA/ROUTING TRANSIT NUMBER: 051036706  
ACCOUNT NUMBER: 540023

U.S. DEPARTMENT OF THE TREASURY  
5700 Rivertech Court  
Riverdale, MD 20737

**PLEASE INCLUDE ANY ADDITIONAL IDENTIFYING INFORMATION THAT IS AVAILABLE (NAME, OFFICE, PROJECT NUMBER, RECEIPT OR INVOICE NUMBER, ETC.) TO ENSURE THAT THE FUNDS ARRIVE AT THE APPROPRIATE NOAA OFFICE.**