U.S. DEPARTMENT OF ENERGY | Office of Science

Style Guide

Atmospheric Radiation Measurement (ARM) Climate Research Facility

March 2013

ARM

CLIMATE RESEARCH FACILITY

Style Guide

Atmospheric Radiation Measurement Climate Research Facility

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Work supported by the U.S. Department of Energy,
Office of Science, Office of Biological and Environmental Research

Contents

1.0 Introduction

The purpose of this style guide is to provide instructions, guidelines, and procedures to assist authors, editors, text processors, and reviewers in preparing material for publication by the Atmospheric Radiation Measurement (ARM) Climate Research Facility. Examples are included to illustrate correct formats for specific covers used within the ARM Facility.

Applicable styles:

- Gregg Reference Manual (primary)
- Chicago Manual of Style (secondary)
- AP Style (for public information materials).

2.0 Acronyms and Abbreviations

2.1 Usage

Acronyms and abbreviations are used frequently in ARM literature. Overuse or inconsistent use of acronyms and abbreviations can confuse your audience. It is important to remember that not everyone outside of the program is familiar with this terminology.

Refer to Appendix A and to the ARM acronyms and abbreviations list on the ARM website.

2.2 Guidelines

General guidelines are as follows:

- define all acronyms and abbreviations on first use
- if an acronym appears only once, delete the acronym and use only the spelled-out version
- whenever possible, avoid using acronyms in titles, except for ARM
- all letters should be capitalized in acronyms and abbreviations. Do not capitalize only the letters that are actual initials of the base words (e.g., SurTHRef vs. SURTHREF).

2.2.1 Specific Examples

Certain acronyms and abbreviations are used in ARM style:

- Spell out state names in text.
- 3D (not 3-D), 2D (not 2-D).
- PhD

- Field campaign shortnames are always all-capped. Do not capitalize only the letters that are actual initials of the base words, regardless of how the acronym is formed. For example, STORMVEX, not STORMVex.
- For program and technical documents, FY2005 (not FY05), do not use a space after the FY.
- For public information products, use FY 2005, with a space.

2.2.2 Terms No Longer Used

The following terms are no longer used:

- ACRF - Formerly used to refer to the ARM Climate Research Facility
- CART Raman lidar (CARL)
- Cloud and Radiation Testbed (CART)
- Co-I - spell out co-investigator
- GCM (global climate model or general circulation model)
- IOP - Intensive Operational Period (preferred term is field campaign)
- VAP to represent value-added processing and value-added procedure. Use only for value-added product.

2.2.3 Value-Added Product Names

The ARM Data Archive often differs from the ARM website when defining the full or long names of value-added products. The translator's choice is preferred. A list of confirmed VAP names is contained Appendix B. When in doubt, check with the VAP translator.

3.0 Capitalization

Capitalization is used to give importance or emphasis to words and make them stand out. When too many words stand out, none stand out.

3.1 Specific Examples

3.1.1 Position Titles

Do not capitalize "titles used as general terms of classification" (see Gregg 314). For example, site scientist, translator, instrument mentor. DO capitalize singular titles such as Technical Director, Chief Operating Officer, Archive Manager, etc.

For specific examples, see Appendix A.

3.1.2 Initial-Capped Terms

- The word "Facility" is always capitalized when used as part of the phrase "ARM Facility."
- ARM Data Archive

3.1.3 Instrument Names

Instrument shortnames are always uppercase (AERI, MWR, RSS, WACR, X-SAPR).

Full names of ARM instruments are lowercase (atmospheric emitted radiance interferometer, microwave radiometer, rotating shadowband spectrometer) in sentences. The following instrument names are exceptions:

- C-band ARM precipitation radar
- Doppler lidar
- energy balance Bowen ratio system
- Ka-band scanning ARM cloud radar, Ka-band ARM zenith radar
- Raman lidar
- scanning W-band ARM cloud radar
- W-band ARM cloud radar
- X-band scanning ARM cloud radar, X-band scanning ARM precipitation radar.

3.1.4 Southern Great Plains Facilities

Central Facility should be treated as a proper noun and initial-capped. Boundary facility and extended facility are always lowercase unless preceded by the specific name of the facility (e.g., Hillsboro Boundary Facility).

3.1.5 Field Campaigns and Intensive Operational Periods

The preferred usage is field campaign rather than intensive operational period (IOP). This term is lowercase unless preceded by a name of a specific IOP (e.g., Water Vapor Intensive Operational Period). The term "field campaign" should be used in general text, and the IOP term should only be used when referring to specific IOPs in historical context.

The term "field campaign" is lowercase unless preceded by a specific campaign name (e.g., Water Vapor Field Campaign.)

3.1.6 ARM Data Archive

The term "ARM Data Archive" is always initial-capped. Do not use "ARM Archive" or "Archive."

4.0 Numbers

4.1 General Guidelines

- Spell out one through nine, except with units of measure.
- Spell out numbers at the beginning of a sentence.
- Use numerals in tables.
- Use numerals to make numerals under 10 consistent with larger numbers in a series.
- Use commas only in numerals with five or more digits.
- Give full ranges for pages or years; for example, change 801–6 to 801–806 and change 1979–80 to 1979–1980.
- Hyphenate compound numbers from twenty-one to ninety-nine, compounds with a number as the first element (e.g., three-way light bulb), and the written form of fractions.

4.2 Measurements

- In programmatic or technical documentation, use numerals with all specific units of measure (i.e., 1 year, 5 hours, 6 lb, 30 days, 1 second).
- In public information materials, spell out units of measurement (four kilometers).
- For programmatic or technical documentation, express percentages as numerals followed by the percent symbol (50%). For public information, spell out 50 percent.
- For programmatic or technical documentation, spell out a number that directly precedes or follows a numeral: ten 2-m strips. For public information: ten 2-meter strips.
- Use metric abbreviations with figures (4 km). Convert imperial measurements (inches, miles, etc.) to metric and confirm measurements with author. When abbreviating inches, use “in.” followed by a period, unless referring to inches squared (in2). Abbreviations for all other units of measure have no punctuation.
- All time and measurements should be spelled out (e.g., hour, minute, second, year). The exception to this would be if abbreviations are needed in figures or tables to save space.
- 212°F and 32°F (0°C). Note that there is no space between any of the elements.
- Use the degree symbol (°) with numbers, not degree or deg (unless in public information).
- Always use numerals when referring to time (8:15 am, 11:25 pm), except for noon and midnight. Do not use periods in “am” and “pm”.
- It is not necessary to repeat units of measure in ranges or series except for degrees (e.g., 40–50%, but 25°C–30°C).

4.3 Dates

- Day, month, and year can be written in the form "26 May 1998" OR "May 26, 1998." Please make sure that form is consistent throughout the individual document.
- Do not abbreviate names of months except in figure captions or tables. The recommended time zone annotation is universal time and is abbreviated UTC (e.g., 1620 UTC). Military time (i.e., a 24-hour clock) should be used.
- Ninth century; 20th century; 1960s (not 60s); October 6, 1966; April 1993 (no comma); April 18, not April 18th.

4.4 Fractions

- Hyphenate fractions when used as both an adjective and a noun (e.g., a two-third majority, two-thirds of those present).
- Spell out common fractions (e.g., one-half) unless they are used with specific units of measure (e.g., ½-cm scale).

5.0 General Terminology and Usage

Inconsistencies can result in users attributing differences in meaning to spurious differences in presentation. Consistency allows users to move through documents without having to waste effort interpreting the style of presentation for each section they encounter. When employing the guidelines in this document, it is important to maintain consistency.

5.1 Sexist or Biased Language

Avoid language that might be interpreted as denigrating to ethnic or other groups. Do not use “he” as a generic pronoun to avoid implying gender-based discriminations. Use “they” and “their” as a singular construction. Examples include the use of “unmanned” facility or man-hours.

5.2 Singular Versus Plural

Some terms vary in the literature. However, to maintain consistency in ARM publications, the following rules are preferred:

- Appendixes: Use appendixes rather than appendices as the plural of appendix.
- Data: Use datum as singular; data as plural.

5.3 Italics and Underlining

- Do not italicize or underline common foreign abbreviations (in situ, a priori).
- Do not italicize or underline for mere emphasis; use bold for emphasizing.

6.0 Punctuation

6.1 Commas

Use serial commas in a list of three or more. Use a comma before a conjunction.

6.2 Parentheses in Enclosures and Lists

The nesting order for enclosures is brackets followed by parentheses ([ ]).

Use parentheses on both sides of a number in a numbered list within a sentence: (a) and (1), not a) and 1).

6.3 Quotation Marks

- Use consistent style quotation marks. Copying and pasting from system to system can cause them to be inconsistent in a document, sometimes “curly,” sometimes "straight." Curly quotes are preferred for print publication.
- Use double quotes, not singles quotes, to set off something for emphasis. Double quotes should always be used unless there is a quote inside a quote. In that case, the single quotes are appropriate.

6.4 Dashes

- The em dash is used to mark a faltering in speech, a sudden change in the construction, or an unexpected turn of thought. Do not use spaces on either side of em dashes (—). *Tip: In Word, the em dash will automatically appear by entering two dashes (-) between the last word and the first word of the emphasis (e.g., now—then).*
- Use the en dash in ranges of numbers (e.g., 10–12 tons of coal). Also use an en dash in a range of page numbers, as in a reference.
- Use en dashes between like things: 1–12 March 1983; but change “1 March-10 April” to “1 March to 10 April”. This format does not apply to public information materials.

6.5 Hyphens

NEVER hyphenate:

- foreign phrases (in situ, a priori)
- chemical compounds
- light or dark + colors (light blue house, dark red house)
- compounds indicating direction or placement (north central Utah, upper right corner)
- adverbs ending in –ward + participle (westward moving currents).

ALWAYS hyphenate:

- near-real-time
- signal-to-noise ratio
- month-by-month computation
- order-of-magnitude change
- day-to-day variation
- one-to-one basis
- numeral + unit of measure (e.g., 2-cm pipe, 10- to 20-km-wide area)
- “self” compounds (e.g., self-knowledge)
- verb + preposition (unless closed up in dictionary) (e.g., short-out, drop-off).

7.0 Bulleted and Numbered Lists

Text presented in a bulleted or numbered format should be reasonably short (e.g., 1 to 10 lines). If your text is longer, consider paragraph format or subheadings.

7.1 Punctuation in Lists

- If items in the list are complete sentences, use normal capitalization and punctuation.
- When items are phrases or single words, begin the text with lower-case letters (except proper nouns); there is no punctuation at the end of each item, except for last item, which is followed by a period.
- If a phrase or single word is followed by a complete sentence, use an endash (with a space on each side) after the phrase or word and then use normal punctuation in the sentence.
- If the sentence introducing the list is a complete sentence, it can end in a period or a colon, whichever seems appropriate (*following,* and *as follows* require a colon). If the introductory material is not a complete sentence, use the punctuation mark that's appropriate for the context, whether that's a comma, semicolon, dash, or nothing at all.

7.2 Numbered Lists

Place items in a numbered list only when the order of the items matters. Otherwise, use bullets or another typographical symbol.

If you are the first one to spot a fire:

1. Close your office door behind you.
2. Find and pull the nearest fire alarm.
3. Leave the building via the nearest stairwell.

7.3 Punctuation Examples for Lists

This course has several graded projects:

- a midterm test
- a final exam
- a team project
- a research paper
- a weekly log for analyzing your field work.

When you move to college for the first time, you usually:

- bring too many things for your dorm room,
- forget a few essential items,

- bring and forget many of the same things as your roommate, and
- wish your parents would take off as soon as the family SUV is unpacked.

8.0 ARM-Specific Terminology

8.1 Referencing ARM and ARM Sites

Collectively, the fixed research sites, mobile facilities, and aerial facility are referred to as the ARM Climate Research Facility or ARM Facility (after first use).

- Southern Great Plains (SGP)
- North Slope of Alaska (NSA)
- Tropical Western Pacific (TWP)
- Eastern North Atlantic (ENA)
- ARM Mobile Facilities (AMFs)
  - ARM Mobile Facility 1 (AMF1)
  - ARM Mobile Facility 2 (AMF2)
  - ARM Mobile Facility 3 (AMF3)
- ARM Aerial Facility (AAF)

8.2 Southern Great Plains

Components of the SGP site are as follows:

- Central Facility (always initial capped). Also sometimes referred to as the Lamont site or C1.
- extended facility (lowercase unless preceded by specific name of facility [see below])
- intermediate facility (lowercase unless preceded by specific name of facility [see below])
- boundary facilities (lowercase unless preceded by specific name of facility [see below]). Note that all boundary facilities have been phased out as of 2010.

Site Designation*	Nearest Town	Status
E1	Larned	Removed 10/15/2010
E2	Hillsboro	Removed 10/21/2010
E3	LeRoy	Removed 10/28/2010
E4	Plevna	Removed 9/27/2011
E5	Halstead	Removed 11/2/2010
E6	Towanda	Removed 10/18/2011
E7	Elk Falls	Removed 11/14/2011
E8	Coldwater	Removed 1/10/2010
E9	Ashton	Active
E10	Tyro	Removed 10/19/2011
E11	Byron	Active
E12	Pawhuska	Active
E13, E14	Lamont	Active
E15	Ringwood	Active
E16	Vici	Removed 11/15/2011
E18	Morris	Removed 11/17/2010
E19	El Reno	Offline 5/25/2011
E20	Meeker	Removed 12/17/2009
E21	Okmulgee	Active
E22	Cordell	Removed 12/1/2010
E24	Cyril	Removed 11/24/2010
E25	Seminole	Removed 4/8/2002
E26	Cement	Removed 12/22/2010
E27	Earlsboro	Removed 1/20/2010
E31	Anthony	Active
E32	Medford	Active
E33	Newkirk	Active
E34	Maple City	Active
E35	Tyron	Active
E36	Marshall	Active
E37	Waukomis	Active
E38	Omega	Active
I1	Beaumont	Removed 4/12/2011
I2	Medicine Lodge	Removed 4/11/2011
I3	Meeker	Removed 4/11/2011
I4	Billings	Active
I5	Garber	Active
I6	Deer Creek	Active
I7	Nardin	Active

8.3 North Slope of Alaska

Components of the NSA site are as follows:

- Barrow site, also known as C1.
- Atqasuk site (active data collection ceased in 2010, was known as C2).

8.4 Tropical Western Pacific

Components of the TWP site are as follows:

- Manus site, also known as C1.
- Nauru site, also known as C2.
- Darwin site, also known as C3.

8.5 Mobile Facilities

The mobile facilities are collectively referred to as the ARM Mobile Facilities (AMF). The term "AMF" is singular, despite the fact that it refers to separate facilities. When referring to a specific facility, use AMF1, AMF2, or AMF3 with no definite article.

Examples:

- The ARM Mobile Facilities (AMF) provide flexible instrument platforms for conducting atmospheric experiments lasting from 6 to 12 months.
- Because of its flexibility and portability, the AMF is an ideal platform for conducting collaborative research anywhere in the world.
- In its most complex deployment to date, the AMF participated in a four-site observational effort to acquire essential cloud, aerosol, radiative, and meteorological measurements for the Study of Aerosol Indirect Effects in China. Anchored by AMF1 at the Shouxian National Climate Observatory, the campaign included a supplemental facility with a reduced complement of AMF instruments at an observatory maintained by the Chinese Academy of Sciences.
- In late 2010, AMF2 will be deployed to Steamboat Springs, Colorado.

8.6 Aerial Facility

The AAF refers to the aerial measurement capabilities of the ARM Facility. Most often, AAF campaigns use the Gulfstream-1 research (G-1) aircraft. The G-1 is leased from PNNL but dedicated to the AAF and should be referred to as "the Department of Energy's G-1."

9.0 ARM Documents

9.1 Document Types and Numbers

There are two main types of publications in ARM: program documents and technical reports. Each type has its own type of document number.

ARM Document Numbers		
DOE/SC-ARM-YY-###	Program Publications	Includes site reports, annual reports, white papers, and public information materials such as fact sheets, brochures, and display posters.
DOE/SC-ARM/TR-###	Technical Reports	Includes technical, science, and value-added product reports

9.2 Document Clearance

Every document that lists a PNNL staff member as an author needs to be cleared through the PNNL's clearance process (ERICA). The exception to this is if the non-PNNL main author had the document cleared through their agency or laboratory. If a document comes to us and does not list PNNL staff as authors, check with the main author to make sure the document has previously been cleared.

9.3 Tables and Figures

Tables and figures should appear as close to the callout as possible. Each figure and table must be cited in the text. (For example, "See Figure 7.") In parenthetical citations, the words "Figure," "Table," and "Section" are capitalized and never abbreviated.

Figures, tables, and appendixes should be capitalized in text.

- In Figure 1
- As you can see in Table 2
- In Johnson's Figure 1
- Evidence in Johnson's Table 1 agrees with my own (Table 2).

When a table breaks across pages, repeat the header row and insert "**Table X.X.** (Cont.)" above it.

9.4 Appendixes

Complex or additional data that are beyond the scope of what the average reader needs to know should be included in the appendixes. Present long but essential details in an appendix. Label multiple appendixes "Appendix A," "Appendix B," etc. Label tables within appendixes "Table A.1," "Table B.1," etc. Each appendix should have its own title.

9.5 Equations

To avoid build-up of fractions and complicated equation structures in text, have complicated expressions appear as "display" equations (i.e., equations centered on one line). Display equations are numbered consecutively and their equation number appears in parentheses set flush right.

The following is an example of an equation and caption:

$$A = \frac{\frac{q(a + x)}{4\tau}}{2r - (A)(4\tau)} - \frac{\tau 4r}{2} + 4C \qquad (1.1)$$

If more than three symbols need to be defined in an equation, use a "where" list. The word "where" is set flush left. The longest symbol is two spaces from the "where," symbols are right justified, and there are two spaces before and after the "=" sign.

where
A = area of spread
B = back length
C = common factor
x2+y2+z2 = ability to float.

If there are three or fewer symbols, include the definition in the text, using "is" instead of the equal sign, as shown below:

$$a = bc \qquad (1.2)$$

where a is the area in square meters, b is the length in meters, and c is the width in meters.

9.6 Document Covers

Example of the standard report template cover: (technical reports, metric reports, instrument reports, handbooks, etc.)

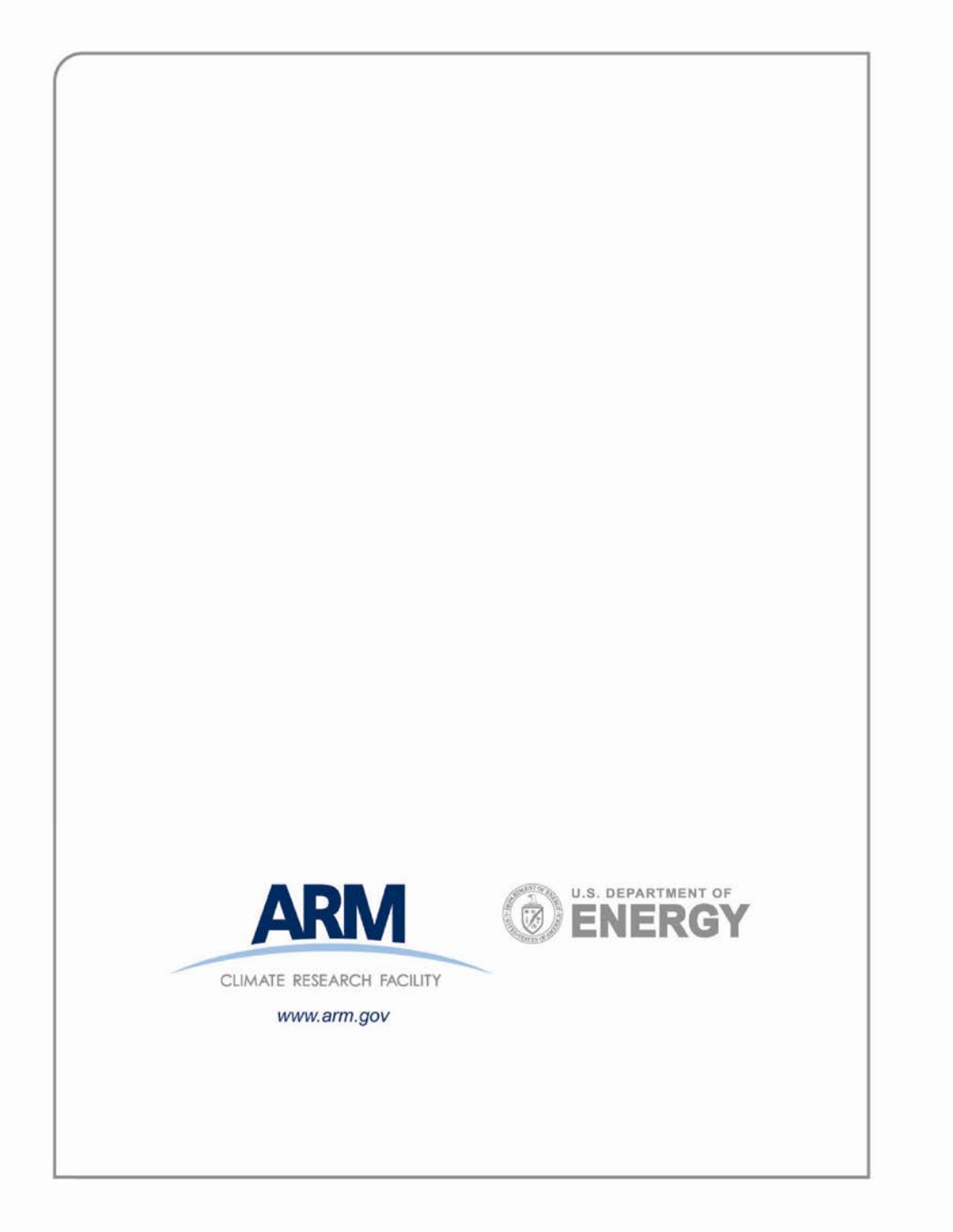
DOE/SC-ARM/XX-XXX

Title

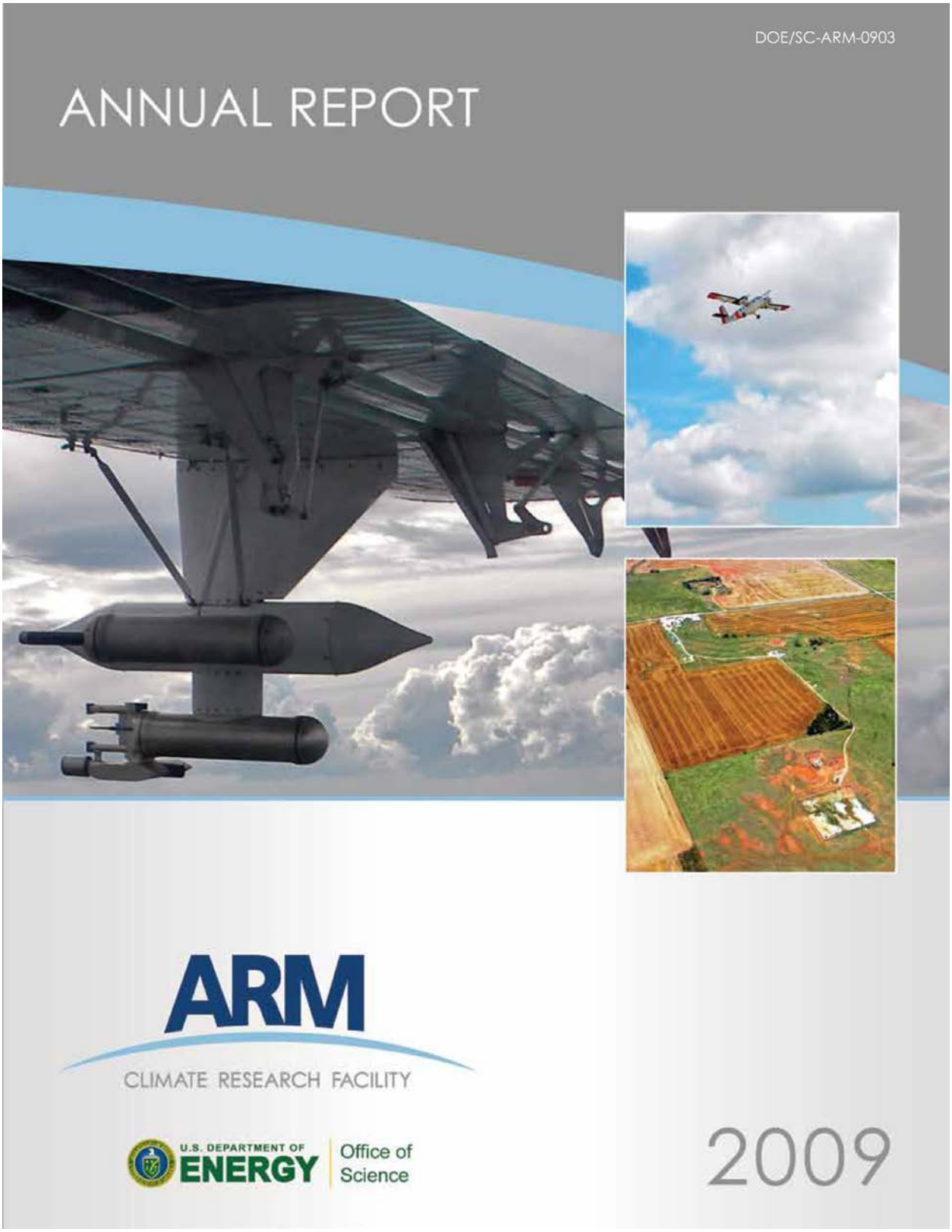
FM Last
FM Last
FM Last
FM Last

Month YYYY

Example of the standard report back cover:



Example of the ARM Annual Report:



Example of an ASR Cover:

Atmospheric System Research (ASR)
Science and Program Plan

January 2010

U.S. DEPARTMENT OF
ENERGY

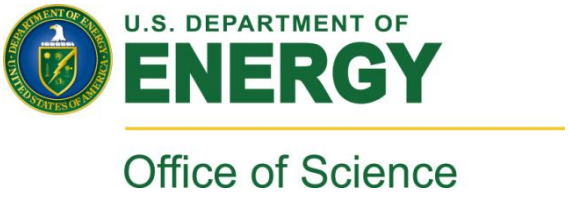
Office of Science

9.7 Logos

Do not use logos for the specific locales, aka sites.

The official ARM Climate Research Facility logo is:

Use the U.S. Department of Energy and/or the Office of Science logo in conjunction with the ARM logo for external products:



When possible, limit the number of logos on a product to 2 by selecting the most appropriate logo or combination of logos for the work represented.

9.8 Guidance for PDF Format for the ARM Website

Save with all of the first page and the bookmarks showing. To do this in Acrobat Professional, go to File, *Document Properties, Initial View* and set *Show* to "Bookmarks Panel and Page" and Magnification to "Fit Page."

If the document has a separate cover, have graphic designer provide it as a separate PDF and insert it using insert pages. If bookmarks don't automatically generate, create them or double check the Word formatting and regenerate. Delete any bookmarks that Word generates that do not have titles or duplicate the bookmark above, e.g., 1. then right below is 1. Introduction.

Publications distributed via the web should not contain any blank pages. Double check the title page to ensure that it is following the standard ARM title page style and that the date, acronym, author affiliation, and work for DOE tagline are correct.

10.0 References

10.1 Guidelines

- Formal documentation is an essential part of scientific and technical literature. Reference lists are nearly as important as the text itself. Previously published research findings and their citations lend legitimacy to your research findings. All references referred to in the text are listed alphabetically, without numbering, at the end of the manuscript. References must be complete.
- Punctuation in text: (Merck et al. 1999; Jones 2002, 2003; Smith and Jones 2004)
- In list form, alphabetize entries by author; if no author is given, begin with title.
- Double space after every period in a reference.

10.2 Example Journal Article

Michalsky, J, JC Liljegren, and L Harrison. 1995. "A comparison of sun photometer derivations of total column water vapor and ozone to standard measures of same at the Southern Great Plains Atmospheric Radiation Measurement site." *Journal of Geophysical Research* 100(D12): 995–1003, doi:10.xxxxx.

10.3 Example Technical Report

Younkin, K, and CN Long. 2003. Improved correction of IR loss in diffuse shortwave measurements: An ARM value-added product. U.S. Department of Energy. DOE/SC-ARM-TR-009.

10.4 Example Proceedings/Poster Abstract

Ferrare, RA, DD Turner, M Clayton, V Brackett, T Tooman, J Ogren, EA Andrews, A Marshak, and AB Davis. 2003. "Vertical variability of aerosols and water vapor over the Southern Great Plains." In *Proceedings of the Thirteenth Atmospheric Radiation Measurement (ARM) Program Science Team Meeting*, U.S. Department of Energy. Richland, Washington. http://www.arm.gov/publications/proceedings/conf13/extended_abs/ferrare_ra.pdf (January 7, 2002).

10.5 Example Abstract/Presentation at Conference

Clough, SA, MW Shephard, EJ Mlawer, JS Delamere, MJ Iacono, K Cady-Pereira, S Boukabara, HE Revercomb, HE Revercomb, DC Tobin, DD Turner, and JJ Morcrette. 2004. "Atmospheric radiative transfer modeling: A summary of AER codes." Presented at the Fourteenth ARM Science Team Meeting. Albuquerque, New Mexico.

10.6 Example Book/Book Chapter

Brown, DJ. 2002. "A real-time look at near-infrared modules." In *The Science Handbook, Illustrated*. Wiley and Sons, New York, pp. 542–551.

10.7 Example Web Reference

- Zelnik, N. November 17, 1998. "Wireless net access gets renewed push." *Internet World*, http://www.iw.com/print/current/news/19981116-wireless.html/.
- American Anthropological Association. 2000[1992] Planning for the Future: Current Long-Range Plan for the American Anthropological Association. Electronic document, http://www.aaanet.org/committees/lrp/lrplan.htm, accessed January 18, 2001.

Appendix A: Common Terms

A.1 List of Common Terms

A

A/D – analog-to-digital conversion

A-Train – NASA constellation of satellites consisting of Aqua, CloudSat, CALIPSO, PARASOL, and Aura

airborne

airflow

air mass (n.), airmass (adj.)

airspeed

airstream

am – referring to time of day, lowercase, no periods, space after numbers

Arctic (n.), arctic (adj.)

ARM Infrastructure (when referring to the group of personnel)

ARM Instrument Team

ASR Science Team

autocorrelation

B

backscatter

backup (n.), back up (v.)

beamwidth

blackbody – one word

boundary layer (n.), boundary-layer (adj.)

breakup (n.), break up (v.)

broad band (n.), broadband (adj.)

C

C-SAPR (C-band ARM precipitation radar)

CALIPSO – Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (NASA satellite)

CAM5 – Community Atmosphere Model (NCAR)

CERES – Clouds and Earth's Radiant Energy System (NASA experiment)

CloudSat

Words formed with “co” *

* When forming nouns, adjectives, and verbs that indicate status, use a hyphen: co-author, co-worker. However, use no hyphen in the following: coeducation, collocation, collocated, coexist, cooperate, and coordinate.

collocated

cross-check

cross correlation (n.), cross-correlation (adj.)

cross section (n.)

cross-section (adj., v.)

cross-sectional (adj.)

cutoff

clear-sky (adj.), clear sky (n.)

cloud base

cloud top

D

Data Quality Office / Data Quality Manager

data set – two words, used to refer to a collection of related datastreams

database – always one word

datastream – always one word, used to refer to files in a time-sequenced series, such as a series of measurements from an instrument

data logger –two words

daytime – one word

downwelling – always one word

dry-adiabatic

E

earth system model

ECCN – export control classification number

ECMWF – European Centre for Medium-Range Weather Forecasts

Eigenvalue

Eigenvector

email – always one word and lowercase

EOS – Earth Observing System (NASA)

Eos – an AGU journal

Eta Model (NCEP model)

eta model (generic model in eta coordinates)

F

federal (lowercase)

finite difference (n.), finite-difference (adj.)

flowchart

flowmeter

flow path

flow rate

G

Gaussian

GOES – Geostationary Operational Environmental Satellite developed by NASA for NOAA

graybody

grayscale

grid box; grid-box scheme – two words when used as noun and hyphenated when used as modifier

grid point (n.), gridpoint (adj.)

H

half-width

I

in between (adj., prep.)

in-between (n., adj.)

indexes (plural of index)

indices (for data)

Infrastructure (when referring to ARM Infrastructure as a collective group)

instrument mentor

interannual

in situ (always two words, never italicized, never hyphenated)

J

jetlike

jet stream

K

KA-SACR (Ka-band scanning ARM cloud radar)

KAZR (Ka-band ARM zenith radar), pronounced as one word and therefore not hyphenated

kilobyte, abbreviate as KB, as in 253KB. No space after the number.

L

Landsat

life cycle; life-cycle term – two words when used as noun and hyphenated when used as modifier

lidar

lognormal

log pressure

land surface

longwave

lookup table

M

man-made

Maritime Continent

Madden-Julian oscillation (MJO)

megabyte, abbreviate as MB, as in 1.2MB. No space after the number.

Meteosat

midpoint

midlatitude (See Gregg 844)

MODIS – Moderate Resolution Imaging Spectroradiometer), key instrument aboard the Terra (EOS AM) and Aqua (EOS PM) satellites

Words formed with "multi" – hyphenate (exception: multifilter)

N

narrow band (n.), narrowband (adj.)

near-infrared (adj.)

near-real time (n.), near-real-time (adj.)

near-surface (adj.)

nighttime – one word

North-central

O

off site – two words but hyphenated if used as a modifier

onboard (adj.), on board (otherwise)

ongoing

online – one word

Ozonesonde

offline

P

pathlength

plane-parallel

planetary wave (adj.), planetary waves

power law (n.), power-law (adj.)

PhD

pm – referring to time of day, lowercase, no periods, space after numbers

postdoc, postdoctoral – capitalized when used as a title with a person's name, otherwise lowercase

preproposal – one word

principal investigator (lowercase, except when used in conjunction with a name)

Q

R

rainband

rainfall

rain gauge (adj.)

rain rate (n.), rain-rate (adj.)

RAOB (sounding software)

raob (radiosonde observation, spell out)

Rayleigh's law

real time (n.), real-time (adj.)

remote sensing (never hyphenated, even when used as an adj.)

root-mean-square (rms)

root-mean-square error (rmse)

S

sea level (adj.)

sea level pressure

scatterplot

sea surface temperature

seawater

setup (n.), set up (v.)

shadowband – always one word

shortwave

Site Operations – spell out operations (not ops)

snowfall

so-called

state of the art (n.), state-of-the-art (adj.)

steady state (n.), steady-state (adj.)

sub-grid – always hyphenated

subtropical

SWACR (scanning W-band ARM cloud radar) pronounced as one word and therefore not hyphenated

T

T/RH – for temperature-relative humidity or temperature/relative humidity

Technical Director/Technical Director's Office

testbed

time scale (n.), time-scale (adj.)

time series

TOA – top of atmosphere (n.), top-of-atmosphere (adj.)

translator

tropics

twofold

U

under way (adj.), underway (adj.)

United States (n.), U.S. (adj.)

upwelling – always one word

V

value-added product

W

W-SACR (W-band scanning ARM cloud radar)

WACR (W-band ARM cloud radar), pronounced as one word and therefore not hyphenated

wavelength

website – always one word

web page – always two words

working group

Working Group Meeting/Working Group Co-Chair

WRF – Weather Research and Forecasting (collaborative climate model)

X

X-SACR (X-band scanning ARM cloud radar)

X-SAPR (X-band scanning ARM precipitation radar)

Y

Z

Appendix B: Value-Added Product Names

B.1 Value-Added Product Names

Abbreviation	Full Name
ACRED	ARM Cloud Retrieval Ensemble Data Set
AERINF	AERI Noise Filter
AERIPROF	AERI Profiles of Water Vapor and Temperature
AIP	Aerosol Intensive Properties
AOD	Aerosol Optical Depth derived from either MFRSR or NIMFR
ARSCL	Active Remote Sensing of Clouds
BAEBBR	Best-Estimate Fluxes From EBBR Measurements and Bulk Aerodynamics Calculations
BEFLUX	Best-Estimate Surface Radiative Flux
BBHRP	Broadband Heating Rate Profile
BEFLUX	Best-Estimate Surface Radiative Flux
KAZR-ARSCL	Ka-band Zenith-Pointing Radar Active Remote Sensing of Clouds
LANGLEY	Langley Regression
LSSONDE	Microwave Radiometer-Scaled Sonde Profiles
MERGESONDE	Merged Sounding
MFRSRCLDOD	Cloud Optical Depth from MFRSR
MICROBASE	Continuous Baseline Microphysical Retrieval
MPLAVG	MPL Polarized Average
MWRRET	Microwave Radiometer Retrievals
QCRAD	Data Quality Assessment for ARM Radiation Data
RIPBE	Radiatively Important Parameters Best Estimate
RLPROFASR	Raman Lidar Profiles – Aerosol Scattering Ratio
SFCCLDGRID	SGP Area Surface Cloud and SW Radiation Grid
SURFSPECALB	Surface Spectral Albedo
WACR-ARSCL	W-band ARM Cloud Radar Active Remote Sensing of Clouds

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