

The Data Series: the United States Precision Lightning Network



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As the spring severe weather season gets into full swing, WSI Corporation and Embry-Riddle Aeronautical University (ERAU) in Daytona Beach (DB), FL are partnering together to bring a new real-time lightning data feed from the United States Precision Lightning Network (USPLN) to the Unidata educational community. The USPLN data feed is available to universities at no cost, through the Unidata LDM/IDD, for educational and research purposes. There are actually two data streams available, the USPLN and the NAPLN, their difference being the area of coverage CONUS (CONtiguous or CONtinentaL US) vs. North America. The networks can detect individual cloud-to-ground lightning strokes within a flash, as well as some cloud-to-cloud flashes.

Subject to initial registration and annual renewal, universities will have free access to the data. Registered users will be able to receive USPLN/NAPLN data from primary and backup servers using the Unidata LDM software. Unidata currently provides decoders for the GEMPAK and McIDAS software packages for the two different formats available for each of the domains. Support for visualization of lightning data by the IDV continues to evolve. ERAU-DB is hosting registration and will coordinate the process with WSI Corporation. Research efforts with this data set are encouraged. It is requested that users with specific research projects communicate with ERAU/WSI to ensure that the data are being used within their observing networks' capabilities and to help determine if the user needs technical input from the USPLN engineers. Select archival datasets are available with approval from WSI.

You will find additional information about the data feed at this link: <http://www.unidata.ucar.edu/data/lightning.html#uspln> and registration information is available at this one: http://wx.erau.edu/faculty/herbster/uspln/erau-wsi-uspln_access_policy.html. Contact [Chris](#) or Unidata [support](#) for additional information.

Below we list the USPLN/NAPLN data record formats:

USPLN / NAPLN original format data record contents (ASCII)	USPLN / NAPLN extended format data record contents (ASCII)
<p>Header Data record containing comma-separated:</p> <ol style="list-style-type: none"> 1. Date/Time [CCYY-MM-DDTHH:MM:SS] 2. Latitude [+DD.ffffff] 3. Longitude [+DDD.ffffff] (west negative convention) 4. Signed peak amplitude (with sign indicating polarity, zero -> cloud-to-cloud, intracloud, cloud-to-air) 5. Multiplicity (always 1) 	<p>Header Data record containing comma-separated:</p> <ol style="list-style-type: none"> 1. Date/Time [CCYY-MM-DDTHH:MM:SS.msec] 2. Latitude [+DD.ffffff] 3. Longitude [+DDD.ffffff] (west negative convention) 4. Signed peak amplitude (with sign indicating polarity, zero -> cloud-to-cloud, intracloud, cloud-to-air) 5. Error ellipse major and minor axes [km] and orientation of major axis

A sneak peak at the new web site

The Unidata Program Center is getting ready to release a new version of its web site. The new site will provide features that will make it easier for visitors to manage their web site accounts and mailing list membership options. The site has been redesigned to address known usability issues and provides some new features that hopefully the community finds interesting and helpful. Making extensive use of CSS, JavaScript, and AJAX, the new design will provide a richer user experience for visitors. Care is being taken to ensure that users with older browsers with limited CSS and JavaScript support will still be able to access and use the major functions the Unidata site provides (e.g., software downloads, support, etc.) We include a [preview](#) of the new design for your perusal. We welcome your [feedback](#) on the current web site and proposed changes.



The Unidata forums

With some regret, we are announcing an end to the forums hosted on our web site. The forums, integrated with our mailing lists, were available to provide an alternate method for perusing and posting content to the list audience. After hosting the forums for a couple of years, we found that: 1) the forums were primarily used as a means of looking at mailing list content; and 2) very few people actually used the forums to post content to the lists or reach the community.

Given the lack of use, we decided to revert back to the mailing lists as the primary venue for discussion/support. Users of a specific forum should be able to post to the corresponding list with no additional need to subscribe to the list. The mailing list archives have been improved to allow for easier browsing and search. We hope you find them easier to use.

The UPC embraces the challenge of maintaining the highest possible level of service in the face of significant increases in data options, volumes, and tools, as well as in the number and diversity of the community. We continually seek and investigate any promising methods for facilitating support and encouraging collaboration within the community. The forums hosted on our web site were one such attempt.

The lefthand navigation column

While the revised web site represents a significant change, some things have not and will not change. One of them is the left navigation column on the home page. There you will still be able to find useful links. The [News & Announcements](#) page where users are invited to post information about workshops, scientific meetings, and competitions is one. Send announcements to be posted to opportunities@unidata.ucar.edu. In the same column, you will find a link to a [Job Opportunities](#) page where announcements of open positions can be posted. Like the community announcements, the job openings information should be sent to opportunities@unidata.ucar.edu.

We invite you to have a look at the proposed new web site design and will welcome your comments. Send them to plaza@unidata.ucar.edu.

News Briefs

Name Change

After 25 years, the Unidata Program is considering a name change. While the name, Unidata, has served us well enough, we have decided that we might be even better served by calling ourselves Monodata. Our reasons for considering this change are numerous and complex, and we'd love your input on this important decision. Please vote by opening the following link:

<http://www.Unidata.ucar.edu/name/change>

NetCDF Release

Developers are pleased to announce the release of version 4.0.1 of the netCDF C/Fortran/C++ libraries. This release includes bug fixes and portability and performance enhancements. See the [release notes](#) for more information. Please send any feedback to support-netcdf@unidata.ucar.edu.



Triennial Users Workshop

Unidata's seventh triennial Users Workshop, *Using Operational and Experimental Observations in Education*, is scheduled for June 8-12, 2009 in Boulder, Colorado. The workshop will provide a chance for participants to experience a combination of presentations, labs, and actual demonstrations of the latest techniques. We'll also have a glimpse of some emerging technologies. A [poster](#) session will be held on June 8.

[Registration](#) closes April 23, 2009. For more information open the following link: <http://www.unidata.ucar.edu/events/2009UsersWorkshop/>



25-year logo

To celebrate our 25th birthday, we have created a new logo. We think you'll agree that it is a fitting symbol to celebrate this significant anniversary.

