



**Jerrold Robaidek David Santek Dave Parker Bill Bellon Clayton Suplinski Rick Kohrs** 

For over 20 years the primary way to access satellite data from the SSEC archive has been via the Abstract Data Distribution Environment (ADDE). ADDE provides clients the ability to extract satellite imagery and subset that data spectrally and spatially. Clients must be able to communicate with a server via the ADDE protocol.

External

Users

Web browser

Smart phone

Script

http://mcfetch.ssec.wisc.edu/cgi-bin/mcfetch?dkey=demo8675309&output=gif&satellite=goes13&date=August+21,+2015&time=17:45&band=1&mag=1+-2&map=yes&lat=45+90&size=1000+1000



| Year       | 1998                    | 1999                    | 2000                    | 2001                    | 2002                    | 2003                    | 2004                    | 2005                    | 2006                    |
|------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Month      | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N I | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M J J A S O N D |
| GOES-1     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-2     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-3     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-4     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-5     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-6     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-7     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-8     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-9     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-10    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-11    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-12    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-13    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-14    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GOES-15    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| SMS-1      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| SMS-2      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GMS-1      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| GMS-5      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-3      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-5      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-6      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-7      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-8      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-9      | ·                       |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-10     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MTSAT-1R   |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MTSAT-2    |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| FY-2C      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| FY-2D      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| FY-2E      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| KALPANA-1  |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| FY-2F      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| COMS-1     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| FY-2G      |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| HIMAWARI-8 |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| MET-11     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| INSAT-3D   |                         |                         |                         |                         |                         |                         |                         |                         |                         |

# A Multi-format Client-agnostic Server for Satellite Data

## The University of Wisconsin Space Science and Engineering Center (SSEC) Data Center has one of the largest online archives of geostationary weather satellite data in the world. The archive is over 1 PB in size, contains data from every GOES Satellite and spans 35+ years. In addition, 15 years of international geostationary satellite data are also in the archive. McFETCH (Multi-format client-agnostic File Extraction Through Contextual HTTP) is a web-based API for accessing a wide range of

| ACFETCH         | × \  | Jerrold 😢 | ← → C ↑ ∩ www.ssec.wisc.edu/mcfetch/#register |  |
|-----------------|--|-----------|---|--|
| 🗋 www.ssec.wise | c.edu/mcfetch/   |           | McFETCH Register                              | Tutorial   |
|                 | MCFETCH Register Tutorial  |           | Begister for an API Key                       |  |
|                 |  |           | Note: you can enter in the follow             | ving for First Name to generate a server side / API error to see how that is handled: !!TEST |
|                 | McFETCH (Multi-format Client-agnostic File Extraction Through Contextual HTTP) is a web-based API for  |           | Fi  | rst Name:  |
|                 | accessing a wide range of meteorological data and imagery from the SSEC Data Center. To use McFETCH you  |           |   |  |
|                 | ungr mor   |           | La  | ast Name:  |
|                 | Register *   |           | Ora   | anization:   |
|                 | * At this time McFETCH is not available for use. Register to sign-up for the McFETCH mailing list to keep informed of news regarding this project, including when it   |           |   |  |
|                 | becomes available.   |           | Email   | Address:   |
|                 |  |           | Phone   | s Number   |
| O               | verview  |           |   |  |
| Th              | e University of Wisconsin-Madison Space Science and Engineering Center (SSEC) Data Center has one of the largest online archives of geostationary weather satellite data in the<br>rid. The archive is over 1 PB in size, contains data from every GOES Satellite and spans 35+ years. In addition, 15 years of international opostationary satellite data are also in the   |           | Subscribe to McFETCH Ma                       | ailing List: Yes No  |
| arc             | shive.   |           |   |  |
| Fo              | r over 20 years the primary way to access satellite data from the SSEC aronive has been via the Abstract Data Distribution Environment (AUDE). AUDE provides clients the ability to<br>tract satellite imagery and subset that data spectrally and spatially. Clients must be able to communicate with a server via the ADDE protocol. Starting in 2016, a new method for<br>tract satellite imagery and subset that data spectrally and spatially. Clients must be able to communicate with a server via the ADDE protocol. Starting in 2016, a new method for<br>traces has been implemented. This arum method. MOETCH is client aronive in a data with a server via the ADDE protocol. Starting in 2016, a new method for<br>the access has been implemented. This arum method. MOETCH is client aronive on the access has been implemented for the server via the ADDE protocol.   |           | negister                                      |  |
| Cal             | ta access has been imperimented. This new method, which can be internaginguit and anows any Cos, software or bende to access data from the Sacco data come and inter sacco dat |           | Loading                                       |  |
| Als             | so beginning in 2016, all geostationary satellite data in the SSEC archive will be accessible at no cost with this mechanism. We will report on the status of free and conditional   |           |   |  |
| arc             | thive access, provide details on scripting examples and additional file formats.   |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 |  |           |   |  |
|                 | estions? Contact Webmaster   |           | Questions? Contact Webmaster                  |  |
|                 | SSEC V   |           |   |  |
|                 |  |           |   |  |



| 1987          | 1988                   | 1989                    | 1990                      | 1991                      | 1992                  | 1993                    | 1994          | 1995                  | 1996                      | 1997      |
|---------------|------------------------|-------------------------|---------------------------|---------------------------|-----------------------|-------------------------|---------------|-----------------------|---------------------------|-----------|
| FMAMIJASON    | I F M A M I LA S O N D | IFMAMILASOND            | IFMAMIJASOND              | IFMAMIJASOND              | IFMAMIJASONI          | JEMAMIJASOND            | JEMAM JJASOND | IFM A M I J A S O N D | JEMAM JJASON D            | IFMAMIJAS |
| I MILMITTICON | 1 Million D            | 1 Million D             | 1 111111100110            |                           | 1 111111111100111     |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
| 2007          | 2008                   | 2009                    | 2010                      | 2011                      | 2012                  | 2013                    | 2014          | 2015                  | 2016                      |           |
| FMAMJJASON    | IJFMAMJJASONI          | D J F M A M J J A S O N | D J F M A M J J A S O N I | D J F M A M J J A S O N I | J F M A M J J A S O N | J F M A M J J A S O N I | JFMAMJJASONI  | JFMAMJJASON           | D J F M A M J J A S O N I | D         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           | _         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           | _         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           | -         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           | -         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           | -         |
|               |                        |                         |                           |                           |                       |                         |               |                       |                           |           |

meteorological data and imagery from the SSEC Data Center.





|         | FREE!                 |
|---------|-----------------------|
|         | 180 days old          |
| s dates | 1974 to 2016          |
|         | 1 GB                  |
| r day   | 1,000                 |
|         | last 10,000 requests* |