Using McIDAS-V in preparation for the GOES-R ABI

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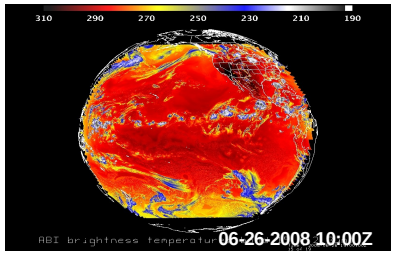
The capabilities of the Advanced Baseline Imager (ABI) that will be on board the GOES-R satellite are being demonstrated by using McIDAS-V as a tool to visualize and analyze simulated GOES-R ABI data. These simulated images were created by the GOES-R Algorithm Working Group (AWG) who used super computers to run high resolution numerical models, which were then input into the Cooperative Institute for Meteorological Satellite Studies (CIMSS) advanced radiative transfer models

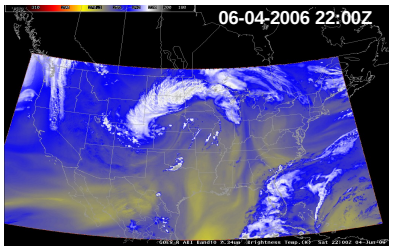
McIDAS-V → VisAD + IDV + HYDRA

Visualize data

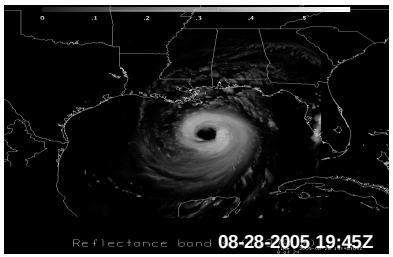
Full disk simulation of the ABI band 15 (12.3um)



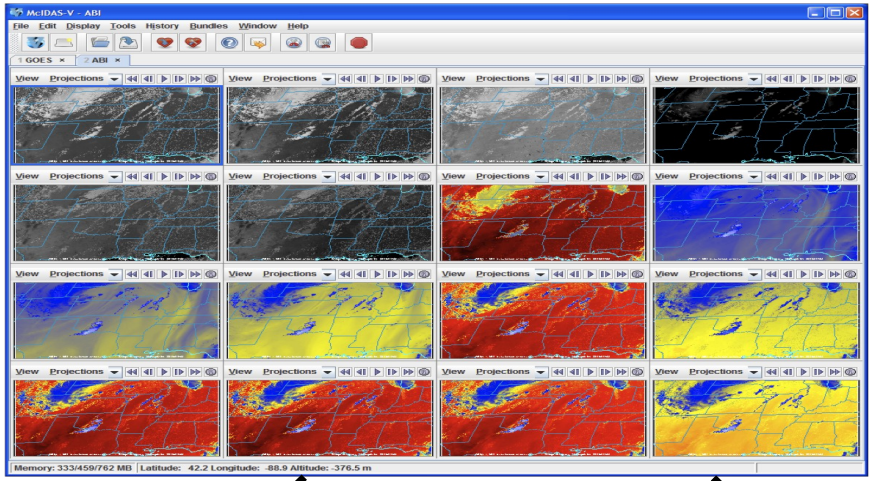
CONUS simulation of the ABI band 10 (7.34um)



Meso-scale simulation of the ABI band 04 (1.378um) showing hurricane Katrina.

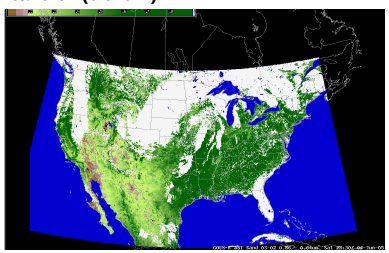


McIDAS-V is a powerful and versatile visualization and data analysis software. It is Java based, open source and freely available.

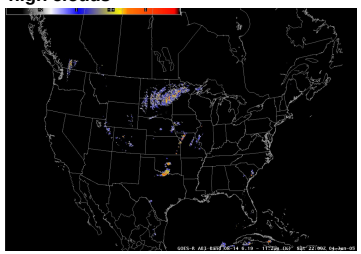


Derive products

NDVI computed using reflectance's from simulated ABI band 03 (0.865um) and band 02 (0.64um)

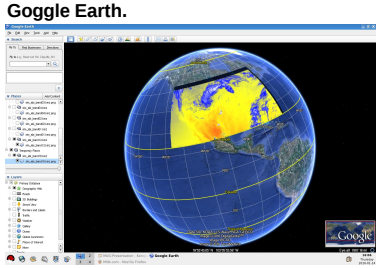


Band Difference of band 08 (6.19um) vs band 14 (11.2um) showing low vs high clouds



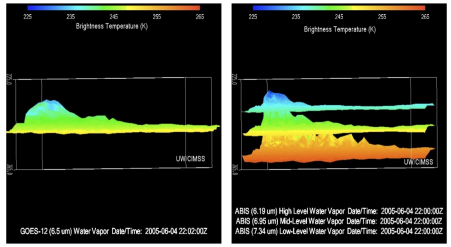
Goggle earth files

KMZ file for band 16 (13.3um) generated by McIDAS-V and displayed in Goggle Earth.

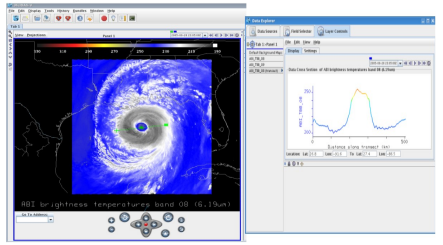


Data analysis

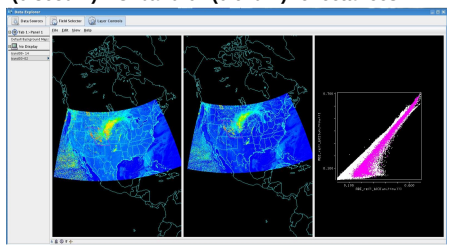
Comparing GOES-12 (6.5um) water vapour and the three ABI water vapour channels (6.19um, 6.95um, 7.43um)



Data transect of simulated ABI band 08 (6.19um) through the eye of hurricane Katrina



Scatter analysis of simulated ABI band 03 (0.865um) vs band 02 (0.64um) reflectances.



Visit the McIDAS-V web site to download the latest release (beta5), User Guide, Training Materials, and join the Forum
http://www.ssec.wisc.edu/mcidas

VisAD: Visualization for Algorithm Development IDV: Integrated Data Viewer
HYDRA: Hyper spectral Data Research Application NDVI: Normalized Difference Vegetation Index

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