MODIS STATUS SUMMARY—11-2006
prepared by
Vincent V. Salomonson
MODIS Science Team Leader

MODIS Science Team Meeting

The attendance (near 250) at the MODIS Science Team meeting was quite substantive and the results presented in oral and poster presentations were very indicative of good progress continuing to be made. A summary of the meeting will be prepared for the Earth Observer and perhaps for other publication opportunities. The participation by so many of the Science Team and others is much appreciated. Presentations made at the meeting and made available so far for posting are show at: http://modis.gsfc.nasa.gov/sci_team/meetings/200610/ .

The MODIS Science Team Leader (VVS) is accumulating inputs and suggestions from the MODIS Science Team, and others, for updates to the Terra Mission Extension Proposal previously submitted and for other input to the Aqua Mission Extension Proposal. There have been quite a few inputs received before the MODIS Science Team meeting and during the meeting. They are quite helpful. If any other ideas come up, please send them to Vincent.V.Salomonson@nasa.gov .

In a broad, overall sense, everything regarding the MODIS sensors, the data processing, and publication progress are very similar to last reports. The following sections of this report provide some details in each case.

MODIS Sensors

Up to the middle of November the Terra and Aqua MODIS sensors in are operating nominally.

As reported in August, the Aqua spacecraft has been going through a series of Inclination-Adjust Maneuvers (IAM) to maintain the 1:30 P.M. – 1:45 P.M. equator-crossing time specification. Various considerations have resulted in the rest of the IAM's being delayed until the Spring of 2007. A tentative schedule for the IAM's in the spring is shown below.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
11 March CD-14	12 CD-15	13 CD-16	14 Aqua IAM #12 CD-1	15 CD-2	16 CD-3	17 CD-4
18 CD-5	19 CD-6	20 Aqua DMUM (?) CD-7	21 Aura IAM #9 CD-8 EQUINOX	22 CD-9	23 CD-10	24 CD-11
25 CD-12	26 CD-13	27 CD-14	28 Aqua IAM #13	29 CD-16	30 CD-1	31 CD-2

			CD-15			
1 April CD-3	2OPTIMUM DATE	3 Aqua DMUM (?) CD-5	4 Aura IAM #10 CD-6	5 CD-7	6 CD-8	7 CD-9
8 CD-10	9 CD11	10 CD-12	11 Aqua IAM #14 CD-13	12 CD-14	13 CD-15	14 CD-16
15 CD-1	16 CD-2	17 Aqua DMUM (?) CD-3	18 Aura IAM #11 CD-4	19 CD-5	20 CD-6	21 CD-7
22 CD-8	23 CD-9	24 CD-10	25 Aqua IAM #15 CD-11	26 CD-12	27 CD-13	28 CD-14
29 CD-15	30 CD-16	1 May Aqua DMUM (?) CD-1	2 Aura IAM #12 CD-2	3 CD-3	4 CD-4	5 CD-5
6 CD-6	7 CD-7	8 Aqua BU IAM CD-8	9 CD-9	10 Aura BU IAM CD-10	11 CD-11	12 CD-12
13 CD-13	14 CD-14	15 Aqua BU IAM CD-15	16 CD-16	17 Aura BU IAM CD-1	18 CD-2	19 CD-3

The issues surrounding the Terra Solid State Recorder (SSR) and the loss of Printed Wire Assemblies (PWA's) are to be presented to NASA HQ toward the end of the year paced by availability of time and personnel at HQ and Goddard. It is hoped that HQ will approve the recycling of the PWA's so that it can be done and not have to experience data loss unduly.

MODAPS Data Processing

The latest detailed information on all MODAPS efforts is at: http://modaps.nascom.nasa.gov:8100/production/ . Summaries follow below.

MODIS Atmospheres Processing on MODAPS

In the case of Atmospheres Data Processing in mid-November, the Atmospheres leading edge for Aqua forward processing was at dataday 315 (Nov 11, 2006) and generally running 1-2 days behind real time. The Atmospheres leading edge for Terra processing was at dataday 316 (Nov 12, 2006) and runs about 1 day behind real time.

Fro Atmospheres Collection 5 Reprocessing, the leading edge in mid-November was Terra Atmospheres at dataday 77 (Mar 18, 2002). The average processing rate for the week ending 11/14 was 14x. The expected completion date for the Terra reprocessing is January 28, 2007. Aqua reprocessing has already been completed.

Land Data Processing on MODAPS

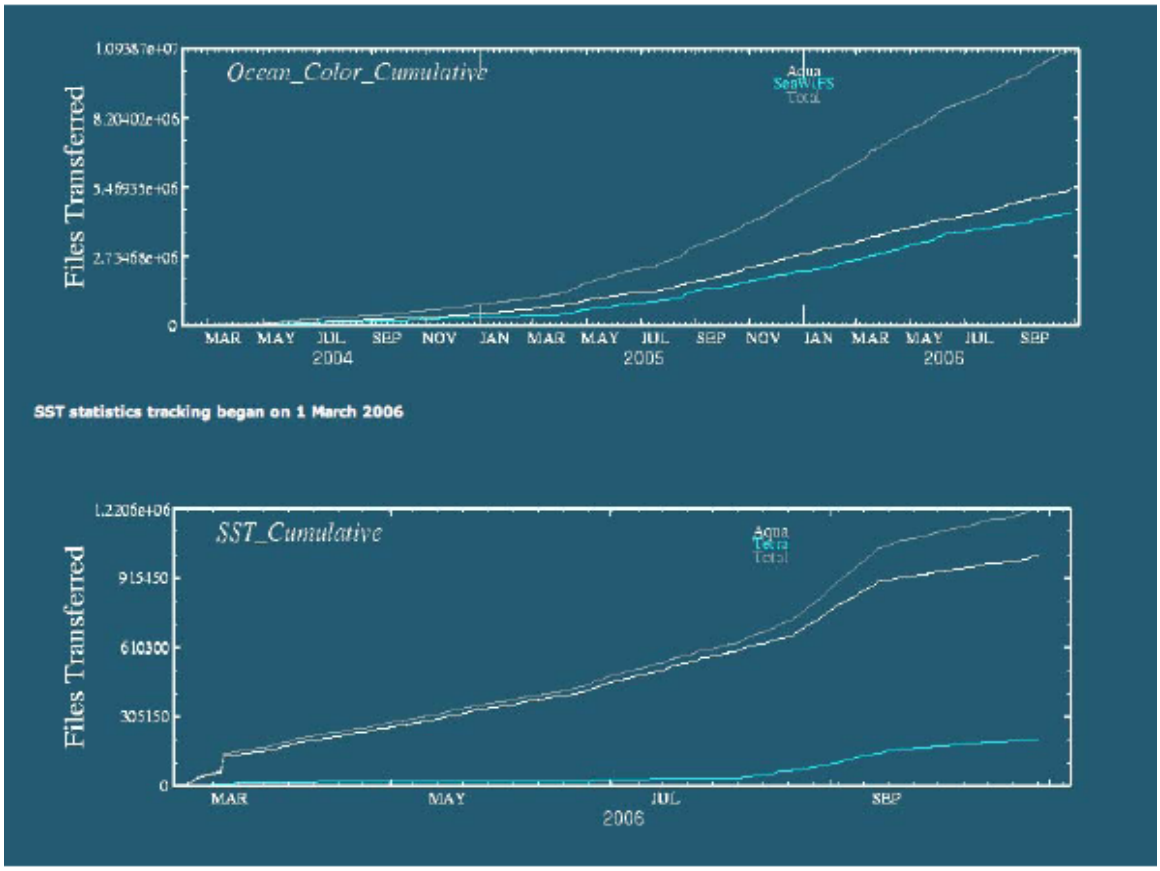
Reprocessing of MODIS land data began in July, but some difficulties were encountered so it was decided that reprocessing would be restarted and begin at Terra first light as soon as further testing is completed. The Terra reprocessing will proceed to the date of Aqua first light. Thereafter, the combined Terra/Aqua interval will be reprocessed and Collection 5 reprocessing for Land is estimated for completion around mid-March 2008.

Land Collection 5 forward processing for Terra and Aqua is expected to start on dataday 001 (January 1), 2007. In the meantime Collection 4 algorithms are being used.

The leading edge for Land Collection 5 reprocessing in mid-November was at dataday 308, (Nov 3, 2000). The average processing rate for the week ending 11/14 was 2.7x. The Terra-only interval will be completed by mid-May, 2007.

Ocean Data Processing

All oceans processing is pretty much all accomplished at the OCDPS. Specifics of status should be gained by going to: http://oceancolor.gsfc.nasa.gov/. The following figures show the growth in ocean color from Aqua MODIS (as well as SeaWiFS) and SST from Aqua and Terra MODIS (courtesy of G. Feldman—see presentation made at Science Team meeting on November 2).



Science/Applications-related Publications involving MODIS

The Web of Science shows at mid-November an overall total of 1304 publications involving MODIS versus 1208 near the end of August—a growth of 96 in the last two-plus months. The total for 2006 is 331 to date versus 235 in April. In the MODIS-related papers listed below there are 3 shown at the beginning that have been identified, but not yet in the "Web of Science" listings. In the Web-of Science listings there are 56 Land-related papers, 34 Atmospheres-related papers, 2 Oceans-related papers, and 4 instrument performance-related papers. Overall, as continues to be the case, there are some very interesting results in all categories being reported.

Bosilovich, M.G. A comparison of MODIS land surface temperature with in situ Observations, GEOPHYSICAL RESEARCH LETTERS, VOL. 33, L20112, doi:10.1029/2006GL027519, 2006

Mildrexler, Zhao, M., Heinsch, F. A., and Running, S., A new satellite-based methodology for continental-scale disburbance detections, Ecological Applications, (in press, Nov 2006).

Mildrexler, D. J., Zhao, M., and Running, S., Where Are the Hottest Spots on Earth?, Eos, Vol. 87, No. 43, 24 October 2006

Liu HY, Crawford JH, Pierce RB, et al., Radiative effect of clouds on tropospheric chemistry in a global three-dimensional chemical transport model, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D20): Art. No. D20303 OCT 18 2006

Chylek P, Robinson S, Dubey MK, et al., Comparison of near-infrared and thermal infrared cloud phase detections, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D20): Art. No. D20203 OCT 21 2006

Tsvetsinskaya EA, Schaaf CB, Gao F, et al., Spatial and temporal variability in Moderate Resolution Imaging Spectroradiometer-derived surface albedo over global arid regions JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D20): Art. No. D20106 OCT 27 2006

Bourgeois CS, Calanca P, Ohmura A, A field study of the hemispherical directional reflectance factor and spectral albedo of dry snow, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D20): Art. No. D20108 OCT 28 2006

Rizzi R, Rudorff BFT, Shimabukuro YE, et al., Assessment of **MODIS** LAI retrievals over soybean crop in Southern Brazil, INTERNATIONAL JOURNAL OF REMOTE SENSING 27 (19): 4091-41

Biggs TW, Thenkabail PS, Gumma MK, et al., Irrigated area mapping in heterogeneous landscapes with **MODIS** time series, ground truth and census data, Krishna Basin, India INTERNATIONAL JOURNAL OF REMOTE SENSING 27 (19): 4245-4266 OCT 10 2006

Xavier VF, Chandrasekar A, Singh R, et al., The impact of assimilation of **MODIS** data for the prediction of a tropical low-pressure system over India using a mesoscale model INTERNATIONAL JOURNAL OF REMOTE SENSING 27 (20): 4655-4676 OCT 20 2006

Kharol SK, Badarinath VS, Impact of biomass burning on aerosol properties over tropical urban region of Hyderabad, India, GEOPHYSICAL RESEARCH LETTERS 33 (20): Art. No. L20801 OCT 17 2006,

Vaughan RG, Hook SJ, Using satellite data to characterize the temporal thermal behavior of an active volcano: Mount St. Helens, WA, GEOPHYSICAL RESEARCH LETTERS 33 (20): Art. No. L20303 OCT 17 2006

Zhao GY, Di Girolamo L, Cloud fraction errors for trade wind cumuli from EOS-Terra instruments, GEOPHYSICAL RESEARCH LETTERS 33 (20): Art. No. L20802 OCT 18 2006

Schreier M, Kokhanovsky AA, Eyring V, et al., Impact of ship emissions on the microphysical, optical and radiative properties of marine stratus: a case study ATMOSPHERIC CHEMISTRY AND PHYSICS 6: 4925-4942 OCT 30 2006

Ge Y, Du YY, Cheng QM, et al., Multifractal filtering method for extraction of ocean eddies from remotely sensed imagery, ACTA OCEANOLOGICA SINICA 25 (5): 27-38 2006

Zhang YQ, Wegehenkel M, Integration of **MODIS** data into a simple model for the spatial distributed simulation of soil water content and evapotranspiration, REMOTE SENSING OF ENVIRONMENT 104 (4): 393-408 OCT 30 2006

Liang SL, Zhong B, Fang HL, Improved estimation of aerosol optical depth from **MODIS** imagery over land surfaces, REMOTE SENSING OF ENVIRONMENT 104 (4): 416-425 OCT 30 2006

Brindley HE, Russell JE, Improving GERB scene identification using SEVIRI: Infrared dust detection strategy, REMOTE SENSING OF ENVIRONMENT 104 (4): 426-446 OCT 30 2006

Roy DP, Lewis P, Schaaf CB, et al. The global impact of clouds on the production of **MODIS** bidirectional reflectance model-based composites for terrestrial monitoring IEEE GEOSCIENCE AND REMOTE SENSING LETTERS 3 (4): 452-456 OCT 2006

Qu JJ, Hao XJ, Kafatos M, et al., Asian dust storm monitoring combining terra and aqua **MODIS** SRB measurements, IEEE GEOSCIENCE AND REMOTE SENSING LETTERS 3 (4): 484-486 OCT 2006

Remer LA, Kaufman YJ, Kleidman RG, Comparison of three years of Terra and Aqua **MODIS** aerosol optical thickness over the global oceans, IEEE GEOSCIENCE AND REMOTE SENSING LETTERS 3 (4): 537-540 OCT 2006

Liu RGG, Liu JYY, Liang SL, Estimation of systematic errors of **MODIS** thermal infrared bands, IEEE GEOSCIENCE AND REMOTE SENSING LETTERS 3 (4): 541-545 OCT 2006
Roura-Pascual N, Suarez AV, McNyset K, et al., Niche differentiation and fine-scale projections for Argentine ants based on remotely sensed data, ECOLOGICAL APPLICATIONS 16 (5): 1832-1841 OCT 2006

Turner DP, Ritts WD, Styles JM, et al., A diagnostic carbon flux model to monitor the effects of disturbance and interannual variation in climate on regional NEP, TELLUS SERIES B-CHEMICAL AND PHYSICAL METEOROLOGY 58 (5): 476-490 NOV 2006

Lin JC, Matsui T, Pielke RA, et al., Effects of biomass-burning-derived aerosols on precipitation and clouds in the Amazon Basin: a satellite-based empirical study, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D19): Art. No. D19204 OCT 12 2006

Goulden ML, Winston GC, McMillan AMS, et al., An eddy covariance mesonet to measure the effect of forest age on land-atmosphere exchange, GLOBAL CHANGE BIOLOGY 12 (11): 2146-2162 NOV 2006

Huneeus N, Gallardo L, Rutllant JA, Offshore transport episodes of anthropogenic sulfur in northern Chile: Potential impact on the stratocumulus cloud deck, GEOPHYSICAL RESEARCH LETTERS 33 (19): Art. No. L19819 OCT 13 2006

Elmore AJ, Asner GP, Hughes RF, Satellite monitoring of vegetation phenology and fire fuel conditions in Hawaiian drylands, EARTH INTERACTIONS 9: Art. No. 21 2005

Potter C, Klooster S, Tan P, et al., Variability in terrestrial carbon sinks over two decades. Part III: South America, Africa, and Asia, EARTH INTERACTIONS 9: Art. No. 29 2005

White JD, Scott NA, Hirsch AI, et al., 3-PG productivity modeling of regenerating Amazon forests: Climate sensitivity and comparison with **MODIS**-derived NPP, EARTH INTERACTIONS 10: Art. No. 8 2006

Hutchison KD, Pekker T, Smith S, Improved retrievals of cloud boundaries from **MODIS** for use in air quality modeling, ATMOSPHERIC ENVIRONMENT 40 (30): 5798-5806 SEP 2006

Gu YX, Belair S, Mahfouf JF, et al., Optimal interpolation analysis of leaf area index using **MODIS** data , REMOTE SENSING OF ENVIRONMENT 104 (3): 283-296 OCT 15 2006

Yang W, Shabanov NV, Huang D, et al., Analysis of leaf area index products from combination of **MODIS** Terra and Aqua data, REMOTE SENSING OF ENVIRONMENT 104 (3): 297-312 OCT 15 2006

George C, Rowland C, Gerard F, et al., Retrospective mapping of burnt areas in Central Siberia using a modification of the normalised difference water index, REMOTE SENSING OF ENVIRONMENT 104 (3): 346-359 OCT 15 2006

Huang JP, Lin B, Minnis P, et al., Satellite-based assessment of possible dust aerosols semi-direct effect on cloud water path over East Asia, GEOPHYSICAL RESEARCH LETTERS 33 (19): Art. No. L19802 OCT 3 2006

Kato S, Loeb NG, Minnis P, et al., Seasonal and interannual variations of top-of-atmosphere irradiance and cloud cover over polar regions derived from the CERES data set, GEOPHYSICAL RESEARCH LETTERS 33 (19): Art. No. L19804 OCT 4 2006

Jin ML, **MODIS** observed seasonal and interannual variations of atmospheric conditions associated with hydrological cycle over Tibetan Plateau, GEOPHYSICAL RESEARCH LETTERS 33 (19): Art. No. L19707 OCT 7 2006

Chen PY, Fedosejevs G, Tiscareno-Lopez M, et al., Assessment of **MODIS**-EVI, **MODIS**-NDVI and vegetation-NDVI composite data using agricultural measurements: An example at corn fields in western Mexico, ENVIRONMENTAL MONITORING AND ASSESSMENT 119 (1-3): 69-82 AUG 2006

Ratana P, Huete AR, Ferreira L, Earth interactions , EARTH INTERACTIONS 9: 1-22 2005

Morton DC, DeFries RS, Shimabukuro YE, et al., Untitled, EARTH INTERACTIONS 9: Art. No. 8 2005

Morisette JT, Giglio L, Csiszar I, et al., Validation of **MODIS** active fire detection products derived from two algorithms, EARTH INTERACTIONS 9: Art. No. 9 2005

Schroeder W, Morisette JT, Csiszar I, et al., Characterizing vegetation fire dynamics in Brazil through multisatellite data: Common trends and practical issues, EARTH INTERACTIONS 9: Art. No. 13 2005

Remote sensing for grassland management in the arid Southwest, RANGELAND ECOLOGY & MANAGEMENT 59 (5): 530-540 SEP 2006

Morton DC, DeFries RS, Shimabukuro YE, et al., Cropland expansion changes deforestation dynamics in the southern Brazilian Amazon, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 103 (39): 14637-14641 SEP 26 2006

Loeb NG, Sun WB, Miller WF, et al., Fusion of CERES, MISR, and **MODIS** measurements for top-of-atmosphere radiative flux validation, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D18): Art. No. D18209 SEP 28 2006

Morris GA, Hersey S, Thompson AM, et al., Alaskan and Canadian forest fires exacerbate ozone pollution over Houston, Texas, on 19 and 20 July 2004, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D24): Art. No. D24S03 SEP 26 2006

Huang S, Siegert F, Land cover classification optimized to detect areas at risk of desertification in North China based on SPOT VEGETATION imagery, JOURNAL OF ARID ENVIRONMENTS 67 (2): 308-327 OCT 2006
Senna MCA, Costa MH, Shimabukuro YE, Fraction of photosynthetically active radiation absorbed by Amazon tropical forest: A comparison of field measurements, modeling, and remote sensing, JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES 110 (G1): Art. No. G01008 SEP 15 2005

Zhao M, Running SW, Nemani RR, Sensitivity of Moderate Resolution Imaging Spectroradiometer (**MODIS**) terrestrial primary production to the accuracy of meteorological reanalyses, JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES 111 (G1): Art. No. G01002 JAN 10 2006

Giglio L, Csiszar I, Justice CO, Global distribution and seasonality of active fires as observed with the Terra and Aqua Moderate Resolution Imaging Spectroradiometer (**MODIS**) sensors, JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES 111 (G2): Art. No. G02016 JUN 10 2006

Roberts DA, Dennison PE, Peterson S, et al., Evaluation of airborne visible/infrared imaging spectrometer (AVIRIS) and moderate resolution imaging spectrometer (**MODIS**) measures of live fuel moisture and fuel condition in a shrubland ecosystem in southern California, JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES 111 (G4): Art. No. G01S02 AUG 30 2006

Calle A, Casanova JL, Romo A, Fire detection and monitoring using MSG spinning enhanced visible and infrared imager (SEVIRI) data, JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES 111 (G3):

Laneve G, Castronuovo MM, Cadau EG, Continuous monitoring of forest fires in the Mediterranean area using MSG, IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING 44 (10): 2761-2768 Part 1 OCT 2006

Redemann J, Zhang Q, Schmid B, et al., Assessment of **MODIS**-derived visible and near-IR aerosol optical properties and their spatial variability in the presence of mineral dust GEOPHYSICAL RESEARCH LETTERS 33 (18): Art. No. L18814 SEP 30

Zibordi G, Strombeck N, Melin F, et al., Tower-based radiometric observations at a coastal site in the Baltic Proper, ESTUARINE COASTAL AND SHELF SCIENCE 69 (3-4): 649-654 SEP 2006

Sarkar S, Changamwong R, Cervone G, et al., Variability of aerosol optical depth and aerosol forcing over India, ADVANCES IN SPACE RESEARCH 37 (12): 2153-2159 2006

von Hoyningen-Huene W, Kokhanovsky AA, Burrows JP, et al., Simultaneous determination of aerosol- and surface characteristics from top-of-atmosphere reflectance using MERIS on board of ENVISAT, ADVANCES IN SPACE RESEARCH 37 (12): 2172-2177 2006

Pongracz R, Bartholy J, Dezso Z, Remotely sensed thermal information applied to urban climate analysis, ADVANCES IN SPACE RESEARCH 37 (12): 2191-2196 2006

Roskovensky JK, Liou KN, Simultaneous determination of aerosol and thin cirrus optical depths over oceans from **MODIS** data: Some case studies, JOURNAL OF THE ATMOSPHERIC SCIENCES 63 (9): 2307-2323 SEP 2006

Wu W, Hall CAS, Scatena FN, et al., Spatial modelling of evapotranspiration in the Luquillo experimental forest of Puerto Rico using remotely-sensed data
JOURNAL OF HYDROLOGY 328 (3-4): 733-752 Sp. Iss. SI SEP 15 2006
Gibelin AL, Calvet JC, Roujean JL, et al., Ability of the land surface model ISBA-A-gs to simulate leaf area index at the global scale: Comparison with satellites products
JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D18): Art. No. D18102 SEP 19 2006

de Meij A, Krol M, Dentener F, et al., The sensitivity of aerosol in Europe to two different emission inventories and temporal distribution of emissions, ATMOSPHERIC CHEMISTRY AND PHYSICS 6: 4287-4309 SEP 25 2006

Rigo G, Parlow E, Oesch D, Validation of satellite observed thermal emission with in-situ measurements over an urban surface, REMOTE SENSING OF ENVIRONMENT 104 (2): 201-210 Sp. Iss. SI SEP 30 2006

Pu RL, Gong P, Michishita R, et al., Assessment of multi-resolution and multi-sensor data for urban surface temperature retrieval, REMOTE SENSING OF ENVIRONMENT 104 (2): 211-225 Sp. Iss. SI SEP 30 2006

Porcasi X, Catala SS, Hrellac H, et al., Infestation of rural houses by Triatoma infestans (Hemiptera : Reduviidae) in southern area of Gran Chaco in Argentina, JOURNAL OF MEDICAL ENTOMOLOGY 43 (5): 1060-1067 SEP 2006

Cappelluti G, Morea A, Notarnicola C, et al., Automatic detection of local cloud systems from **MODIS** data, JOURNAL OF APPLIED METEOROLOGY AND CLIMATOLOGY 45 (8): 1056-1072 AUG 2006

Li YQ, Liu XD, Chen BD, Cloud type climatology over the Tibetan Plateau: A comparison of ISCCP and **MODIS**/TERRA measurements with surface observations, GEOPHYSICAL RESEARCH LETTERS 33 (17): Art. No. L17716 SEP 15 2006

White MA, Nemani RR, Real-time monitoring and short-term forecasting of land surface phenology, REMOTE SENSING OF ENVIRONMENT 104 (1): 43-49 SEP 15 2006

Ahl DE, Gower ST, Burrows SN, et al., Monitoring spring canopy phenology of a deciduous broadleaf forest using **MODIS**, REMOTE SENSING OF ENVIRONMENT 104 (1): 88-95 SEP 15 2006

Agarwal R, Singh D, Chauhan DS, et al., Detection of coal mine fires in the Jharia coal field using NOAA/AVHRR data, JOURNAL OF GEOPHYSICS AND ENGINEERING 3 (3): 212-218 SEP 2006

Kotchenova SY, Vermote EF, Matarrese R, et al., Validation of a vector version of the 6S radiative transfer code for atmospheric correction of satellite data. Part I: Path radiance APPLIED OPTICS 45 (26): 6762-6774 SEP 10 2006

Frolking S, Milliman T, McDonald K, et al., Evaluation of the SeaWinds scatterometer for regional monitoring of vegetation phenology, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D17): Art. No. D17302 SEP 1 2006

Matsui T, Masunaga H, Kreidenweis SM, et al., Satellite-based assessment of marine low cloud variability associated with aerosol, atmospheric stability, and the diurnal cycle JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D17): Art. No. D17204 SEP 9 2006

Lee TF, Miller SD, Schueler C, et al., NASA **MODIS** previews NPOESS VIIRS capabilities WEATHER AND FORECASTING 21 (4): 649-655 AUG 2006

Stow D, Niphadkar M, Kaiser J, Time series of chaparral live fuel moisture maps derived from **MODIS** satellite data, INTERNATIONAL JOURNAL OF WILDLAND FIRE 15 (3): 347-360 2006

Chopping MJ, Su LH, Laliberte A, et al., Mapping woody plant cover in desert grasslands using canopy reflectance modeling and MISR data, GEOPHYSICAL RESEARCH LETTERS 33 (17): Art. No. L17402 SEP 9 2006

Zhang Y, Gu XF, Yu T, et al., Radiometric cross-calibration of CBERS-02 IRMSS thermal channel, JOURNAL OF INFRARED AND MILLIMETER WAVES 25 (4): 261-266 AUG 2006

Roesch A, Roeckner E, Assessment of snow cover and surface albedo in the ECHAM5 general circulation model, JOURNAL OF CLIMATE 19 (16): 3828-3843 AUG 2006

Chen X, Zhang Q, Zhou KF, et al., Quantitative assessment and analysis on the dynamic change of ecological capital in and areas, CHINESE SCIENCE BULLETIN 51: 204-212 Suppl. 1 JUN 2006

Zhou KF, Chen X, Zhou HR, et al., Study on RS- and GIS-based ecological capital assessment in arid areas, CHINESE SCIENCE BULLETIN 51: 213-220 Suppl. 1 JUN 2006

Storelvmo T, Kristjansson JE, Myhre G, et al., Combined observational and modeling based study of the aerosol indirect effect, ATMOSPHERIC CHEMISTRY AND PHYSICS 6: 3583-3601 SEP 4 2006

Han B, Kang LS, Song HZ, A fast cloud detection approach by integration of image segmentation and support vector machine, LECTURE NOTES IN COMPUTER SCIENCE 3973: 1210-1215 2006

Gamon JA, Rahman AF, Dungan JL, et al., Spectral Network (SpecNet) - What is it and why do we need it?, REMOTE SENSING OF ENVIRONMENT 103 (3): 227-235 AUG 15 2006

Claudio HC, Cheng YF, Fuentes DA, et al., Monitoring drought effects on vegetation water content and fluxes in chaparral with the 970 nm water band index, REMOTE SENSING OF ENVIRONMENT 103 (3): 304-311 AUG 15 2006

Chen XX, Vierling L, Spectral mixture analyses of hyperspectral data acquired using a tethered balloon, REMOTE SENSING OF ENVIRONMENT 103 (3): 338-350 AUG 15 2006

Hill MJ, Held AA, Leuning R, et al., **MODIS** spectral signals at a flux tower site: Relationships with high-resolution data, and CO2 flux and light use efficiency measurements, REMOTE SENSING OF ENVIRONMENT 103 (3): 351-368 AUG 15 2006

Cheng YF, Gamon JA, Fuentes DA, et al., A multi-scale analysis of dynamic optical signals in a Southern California chaparral ecosystem: A comparison of field, AVIRIS and **MODIS** data, REMOTE SENSING OF ENVIRONMENT 103 (3): 369-378 AUG 15 2006

Widlowski JL, Pinty B, Lavergne T, et al., Horizontal radiation transport in 3-D forest canopies at multiple spatial resolutions: Simulated impact on canopy absorption REMOTE SENSING OF ENVIRONMENT 103 (4): 379-397 AUG 30 2006

Xiao XM, Hagen S, Zhang QY, et al., Detecting leaf phenology of seasonally moist tropical forests in South America with multi-temporal **MODIS** images, REMOTE SENSING OF ENVIRONMENT 103 (4): 465-473 AUG 30 2006

Mote PW, Frey R, Variability of clouds and water vapor in low latitudes: View from Moderate Resolution Imaging Spectroradiometer (**MODIS**), JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D16): Art. No. D16101 AUG 17 2006

Waser LT, Schwarz M, Comparison of large-area land cover products with national forest inventories and CORINE land cover in the European Alps, INTERNATIONAL JOURNAL OF APPLIED EARTH OBSERVATION AND GEOINFORMATION 8 (3): 196-207 SEP 2006

Lee KH, Kim YJ, Kim MJ, Characteristics of aerosol observed during two severe haze events over Korea in June and October 2004 , ATMOSPHERIC ENVIRONMENT 40 (27): 5146-5155 SEP 2006

Koelemeijer RBA, Homan CD, Matthijsen J, Comparison of spatial and temporal variations of aerosol optical thickness and particulate matter over Europe, ATMOSPHERIC ENVIRONMENT 40 (27): 5304-5315 SEP 2006

van der Werf GR, Randerson JT, Giglio L, et al., Interannual variability in global biomass burning emissions from 1997 to 2004, ATMOSPHERIC CHEMISTRY AND PHYSICS 6: 3423-3441 AUG 21 2006

Liang SL, Zheng T, Liu RG, et al., Estimation of incident photosynthetically active radiation from Moderate Resolution Imaging Spectrometer data, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D15): Art. No. D15208 AUG 8 2006

Deeter MN, Vivekanandan J, New dual-frequency microwave technique for retrieving liquid water path over land, JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 111 (D15): Art. No. D15209 AUG 8 2006

Christopher SA, Zhang JL, Kaufman YJ, et al., Satellite-based assessment of top of atmosphere anthropogenic aerosol radiative forcing over cloud-free oceans GEOPHYSICAL RESEARCH LETTERS 33 (15): Art. No. L15816 AUG 10 2006