

## Session of practical work (Ground-based observation)

### Training Week on WMO SDS-WAS products

#### Session#1

## Saharan dust intrusion case study

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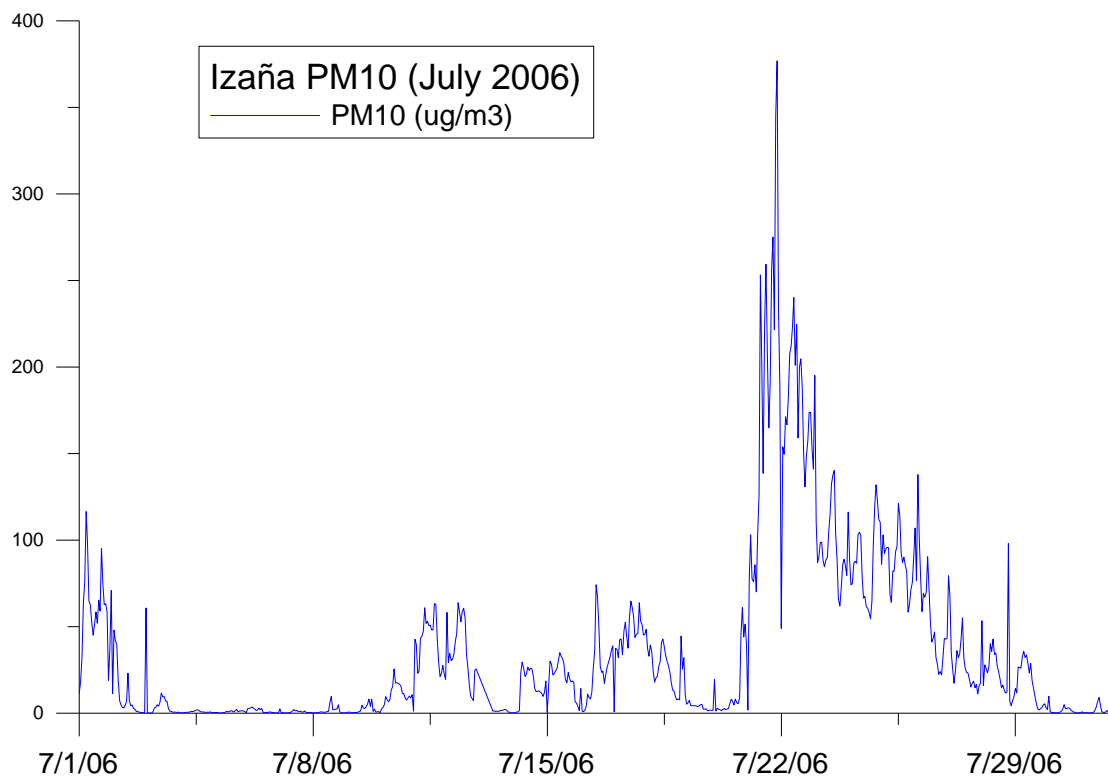
Antalya-Turey, November 24, 2011

#### 1. Goal:

- a. To learn the utilization of different meteorological tools to perform a proper analysis of ground-based dust data
- b. To learn how to analyze dust intrusion events from ground-based data and ancillary meteorological information

#### 2. Material:

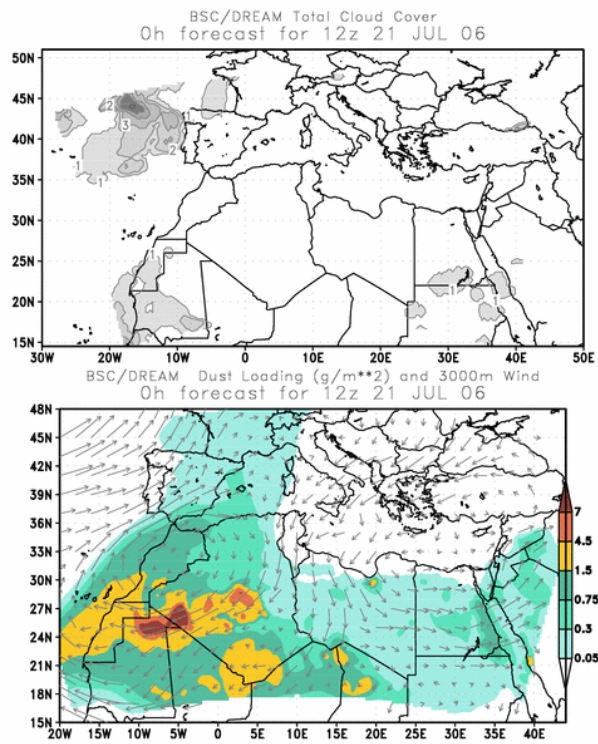
3. **PM10 data** (Izana Observatory) (July 21, 2006); data provided by CIAI-AEMET



<http://sds-was.aemet.es>

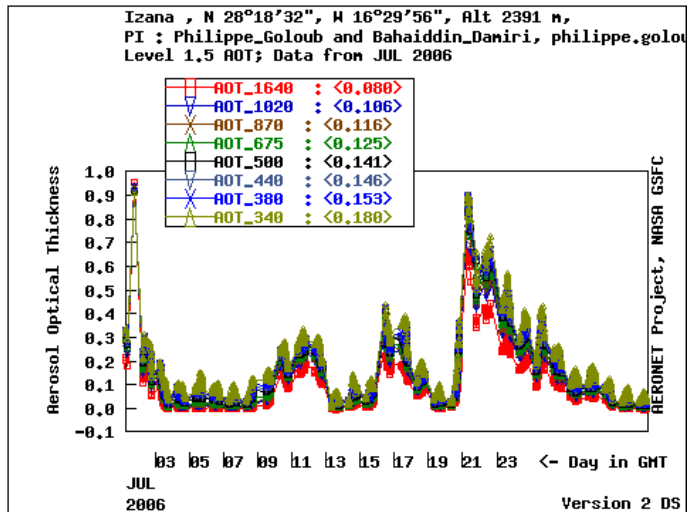
## 1. Dust Model (BSC-DREAM8b)

[www.bsc.es](http://www.bsc.es)

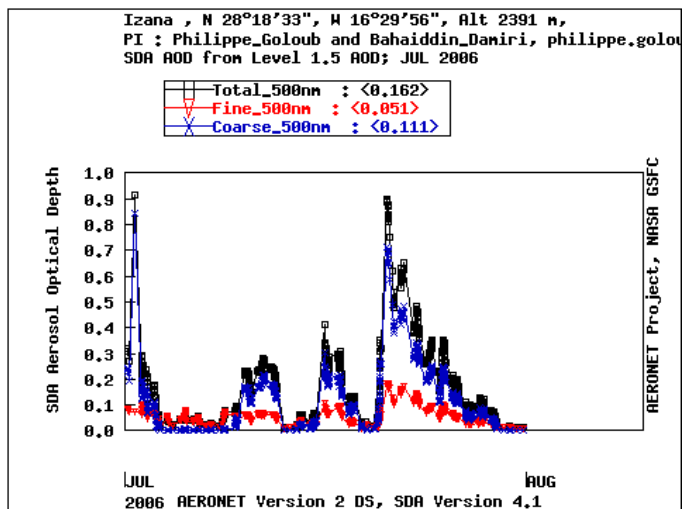


## 2. AERONET

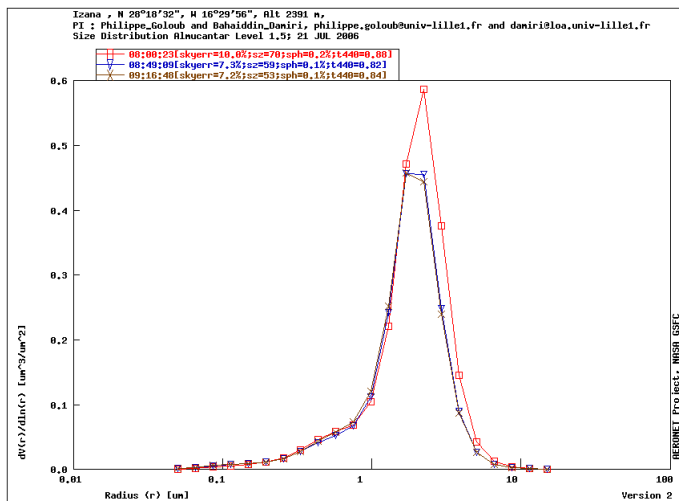
<http://aeronet.gsfc.nasa.gov>



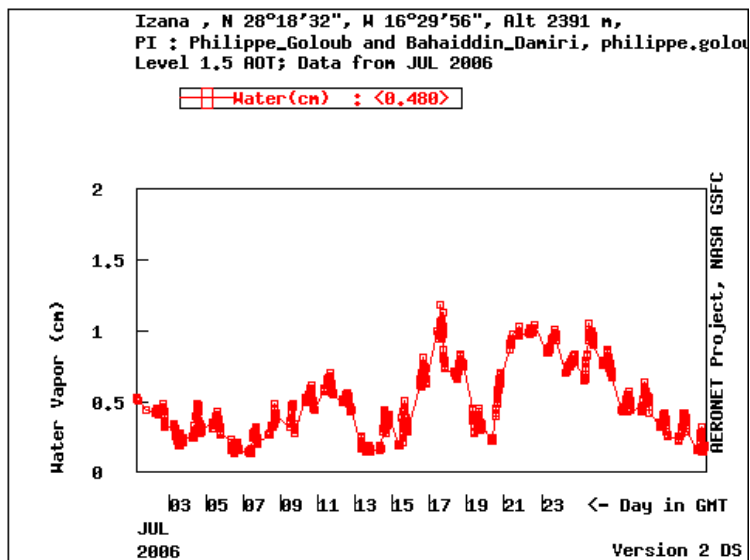
AOD



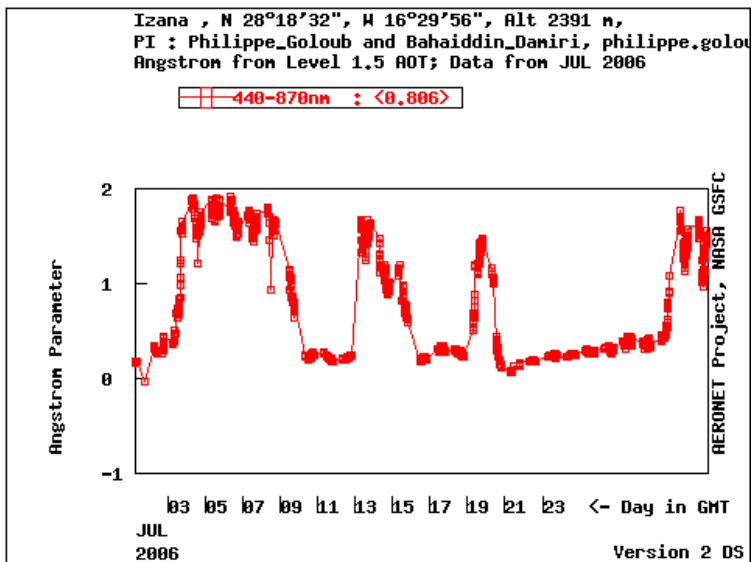
Fine and coarse modes



Size distribution



Column Water vapor



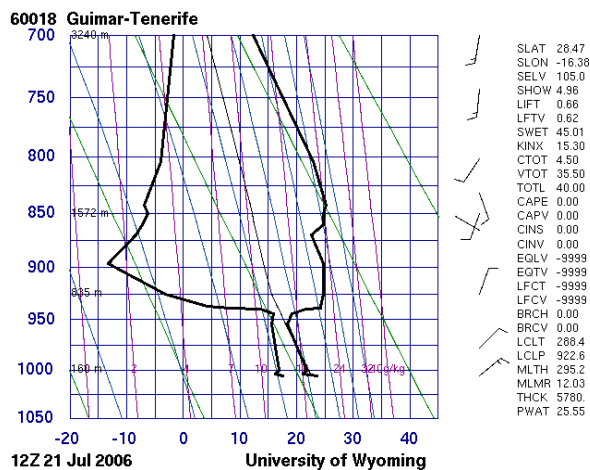
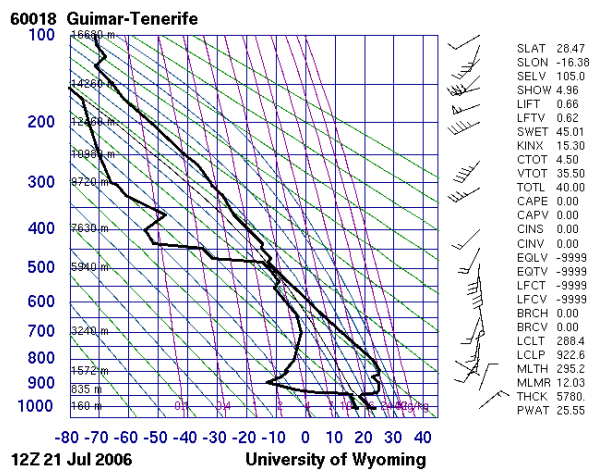
Alfa Exponent

<http://ready.arl.noaa.gov/HYSPLIT.php>



#### 4. Radiosondes (University of Wyoming)

<http://weather.uwyo.edu/upperair/sounding.html>



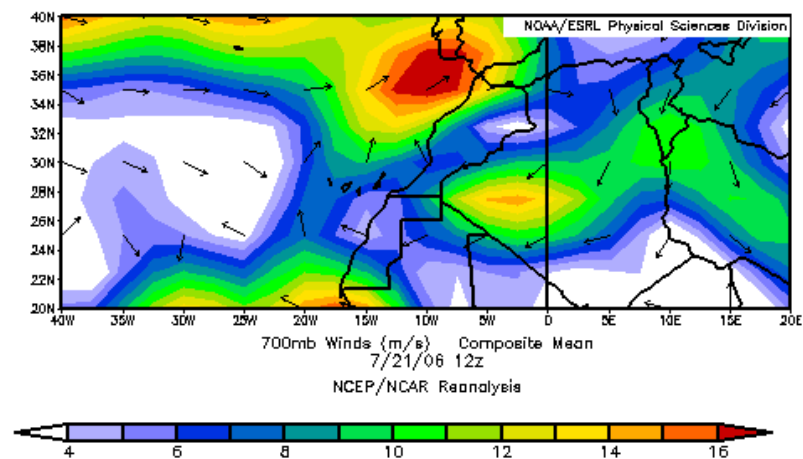
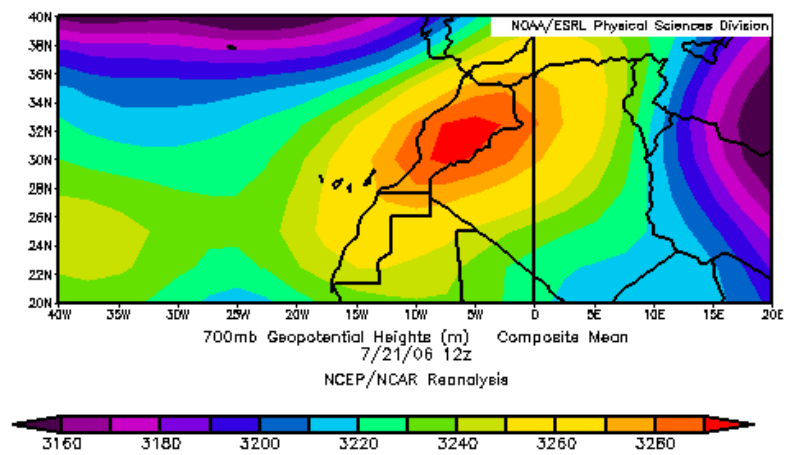
**60018 Guimar-Tenerife Observations at 12Z 21 Jul 2006**

PRES	HGHT	TEMP	DWPT	RELH	MIXR	DRCT	SKNT	THTA	THTE	THTV
hPa	m	C	C	%	g/kg	deg	knot	K	K	K
1006.0	105	23.6	17.6	69	12.75	50	16	296.2	333.2	298.5
1004.0	123	21.2	16.2	73	11.67	52	15	294.0	327.6	296.1
1000.0	160	21.8	16.9	74	12.26	55	14	294.9	330.3	297.1
978.0	352	20.2	16.3	78	12.05	45	10	295.2	330.0	297.4
954.0	567	18.4	15.6	84	11.82	34	10	295.5	329.7	297.6
944.0	658	19.2	15.9	81	12.18	29	10	297.2	332.7	299.4
940.0	695	21.6	13.6	60	10.52	27	10	300.0	331.1	301.9
939.0	704	24.2	8.2	36	7.31	27	10	302.8	324.9	304.1
937.0	722	24.2	4.2	27	5.55	26	10	302.9	319.9	303.9
925.0	835	24.8	-3.2	15	3.28	20	10	304.7	315.1	305.3
896.0	1113	24.8	-13.2	7	1.55	342	6	307.4	312.6	307.7
870.0	1369	22.6	-8.4	12	2.34	307	3	307.8	315.4	308.2
865.0	1419	23.7	-7.8	12	2.47	300	2	309.4	317.5	309.9
860.0	1470	24.8	-7.2	11	2.60	267	4	311.1	319.6	311.6
850.0	1572	24.8	-6.2	12	2.84	200	8	312.1	321.5	312.6

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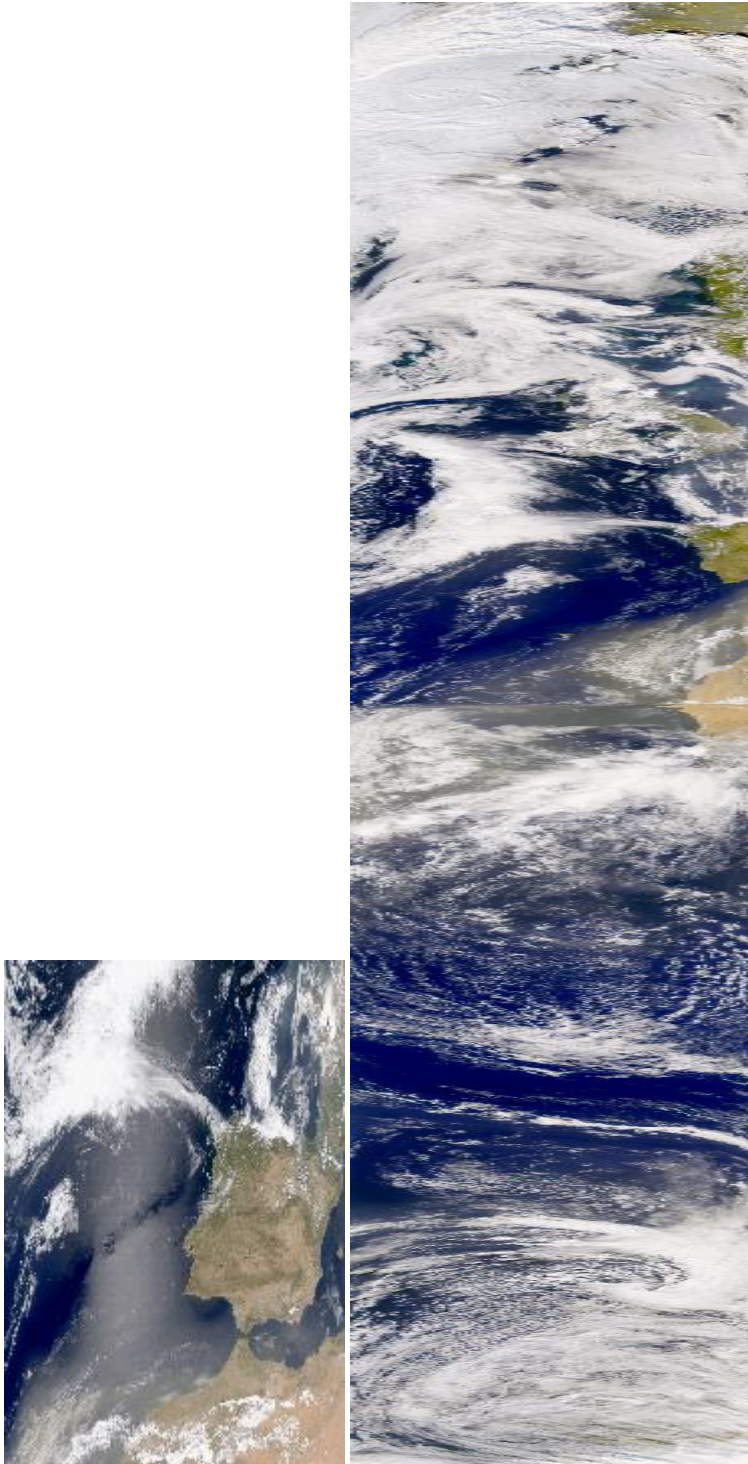
## 5. Weather maps (NCEP)

<http://www.esrl.noaa.gov/psd/data/composites/hour/>



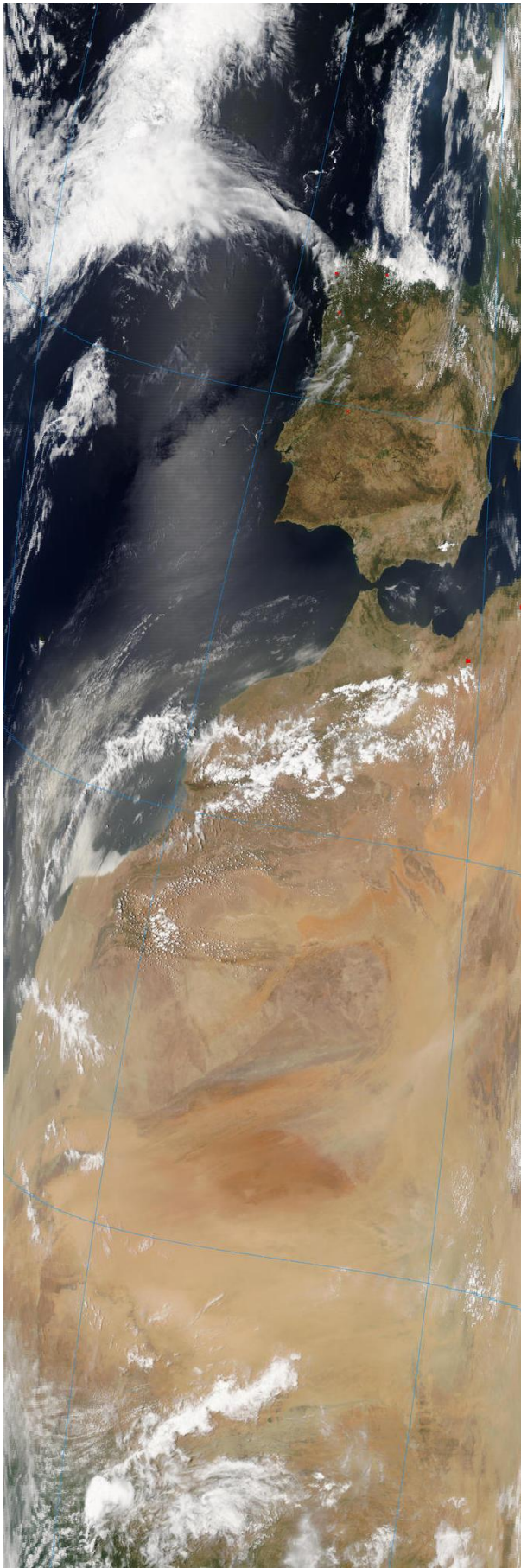
## **6. Satellite information**

<http://oceancolor.gsfc.nasa.gov/cgi/browse.pl>



<http://rapidfire.sci.gsfc.nasa.gov/realtime/2010319/>





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