1 *Supplementary material*

2

NOAA HYSPLIT MODEL
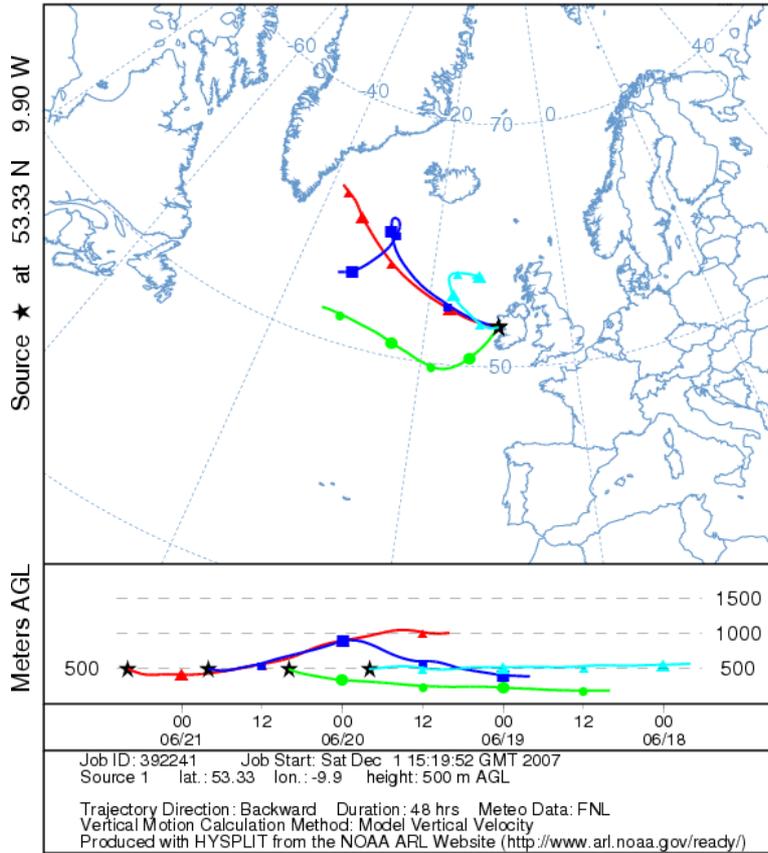Backward trajectories ending at 08 UTC 16 Jun 06
FNL Meteorological Data
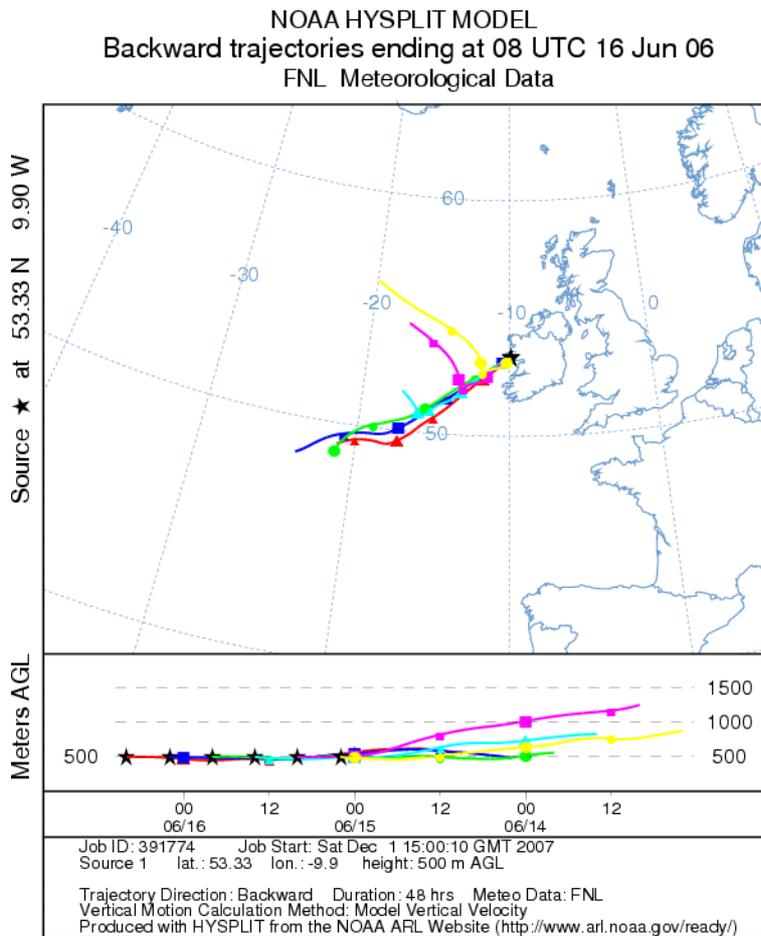
3

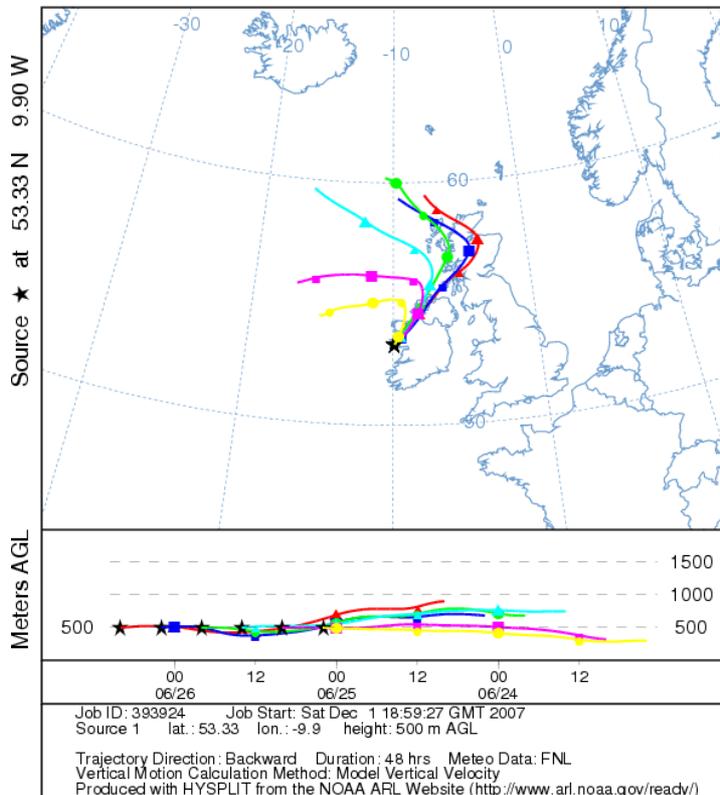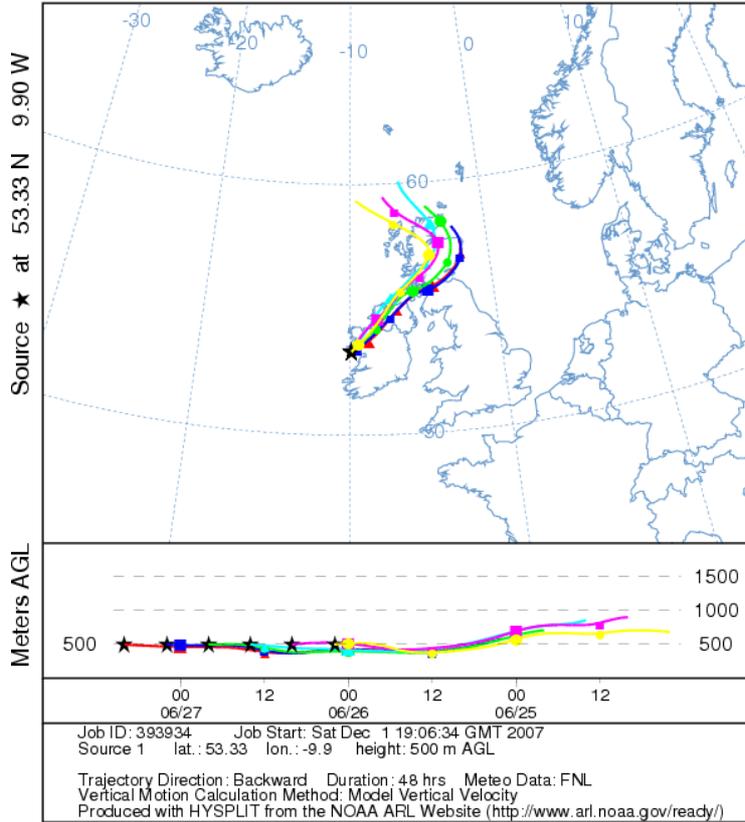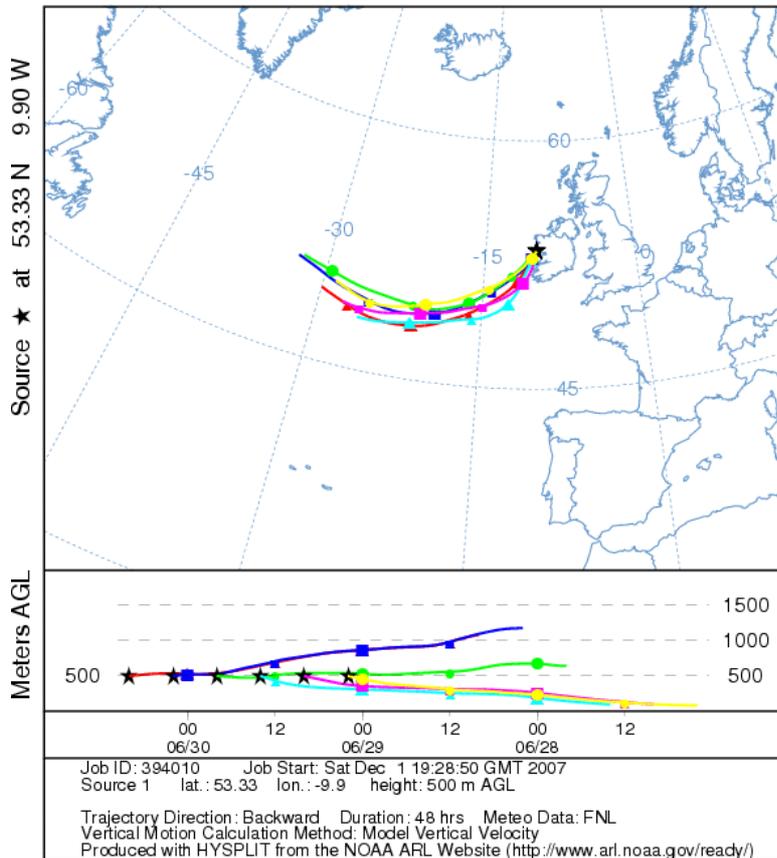4 Sup. Fig. 1: Back trajectories for the 15th June samples.

NOAA HYSPLIT MODEL
Backward trajectories ending at 08 UTC 18 Jun 06
FNL Meteorological Data
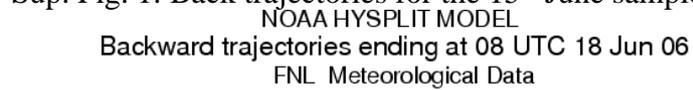
5

6 Sup. Fig. 2: Back trajectories for samples from the 17th June.

NOAA HYSPLIT MODEL
Backward trajectories ending at 08 UTC 19 Jun 06
FNL Meteorological Data

Source ★ at 53.33 N   9.90 W

Meters AGL

1500
1000
500

500

500

```
00      12      00      12      00      12      00      12      00
06/19           06/18           06/17           06/16           06/15
```

Job ID: 392044   Job Start: Sat Dec 1 15:11:21 GMT 2007
Source 1   lat.: 53.33   lon.: -9.9   height: 500 m AGL

Trajectory Direction: Backward   Duration: 48 hrs   Meteo Data: FNL
Vertical Motion Calculation Method: Model Vertical Velocity
Produced with HYSPLIT from the NOAA ARL Website (http://www.arl.noaa.gov/ready/)

Sup. Fig. 3: Back trajectories for samples from the 18th June.

NOAA HYSPLIT MODEL
Backward trajectories ending at 08 UTC 20 Jun 06
FNL Meteorological Data

Source ★ at 53.33 N   9.90 W

Meters AGL

1500
1000
500

500

500

```
00      12      00      12      00      12      00      12      00
06/20           06/19           06/18           06/17           06/16
```

Job ID: 392180   Job Start: Sat Dec 1 15:16:42 GMT 2007
Source 1   lat.: 53.33   lon.: -9.9   height: 500 m AGL

Trajectory Direction: Backward   Duration: 48 hrs   Meteo Data: FNL
Vertical Motion Calculation Method: Model Vertical Velocity
Produced with HYSPLIT from the NOAA ARL Website (http://www.arl.noaa.gov/ready/)

Sup. Fig. 4: Back trajectories for samples from the 19th June.

Sup.Fig. 5: Back trajectories for samples from the 20th June.

Sup. Fig. 6: Back trajectories for samples taken on the 25th June.

Sup. Fig. 7: Back trajectories for samples taken on the 26th June.

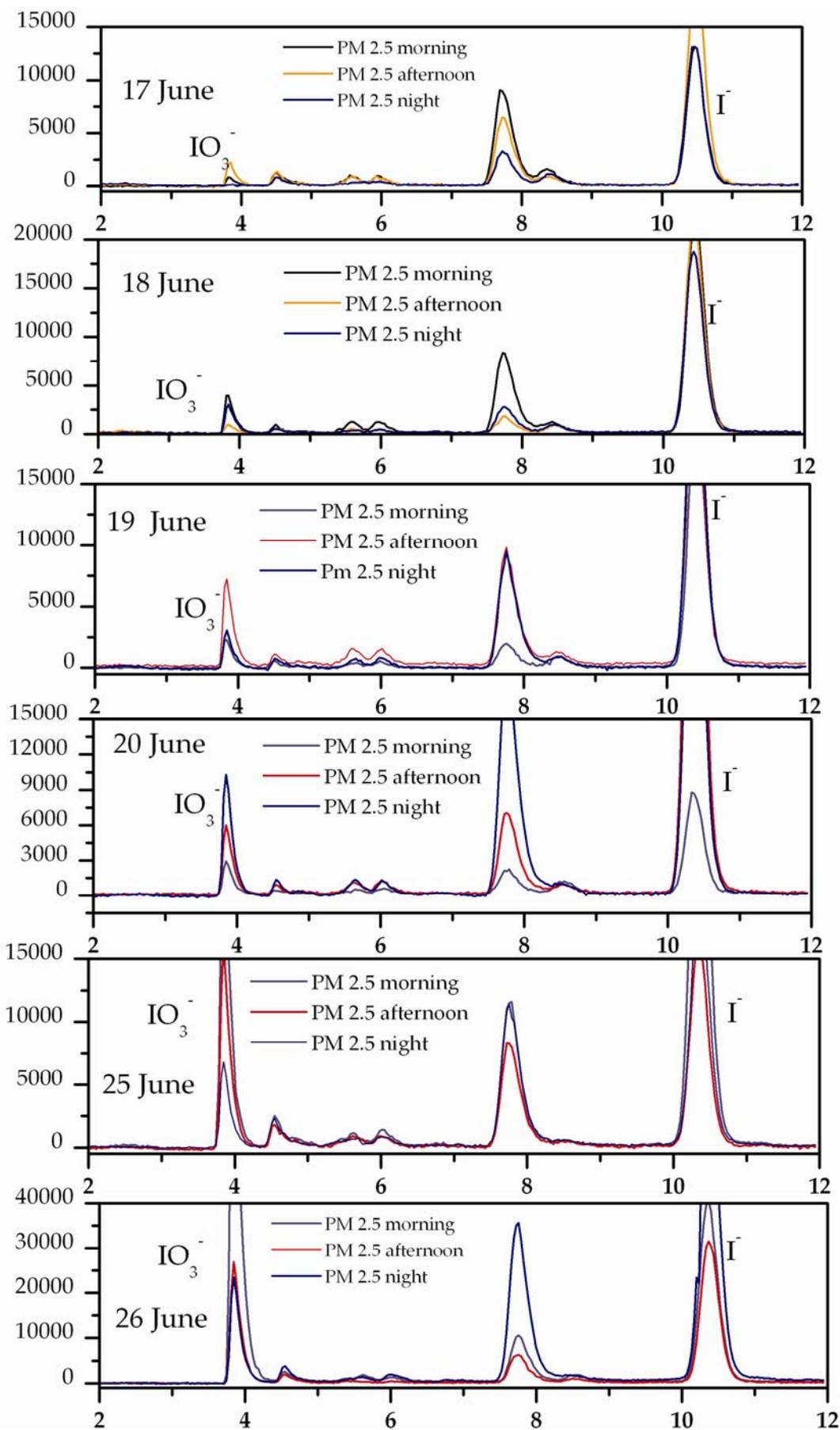Sup. Fig. 8: Back trajectories for samples taken on the 29th June.
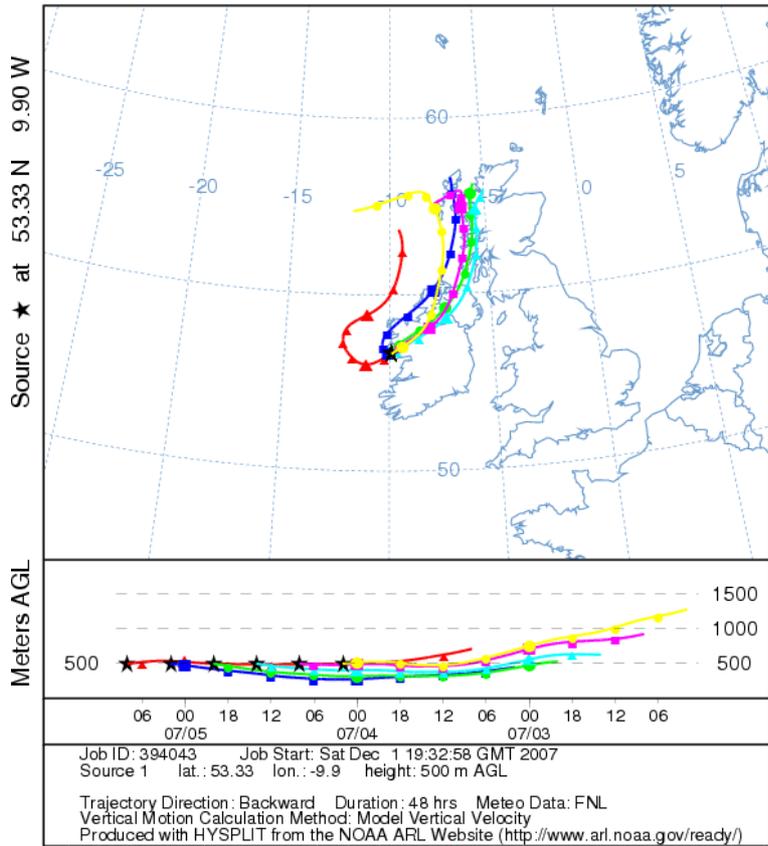
Sup. Fig. 9: Back trajectories for samples taken on the 4th July.
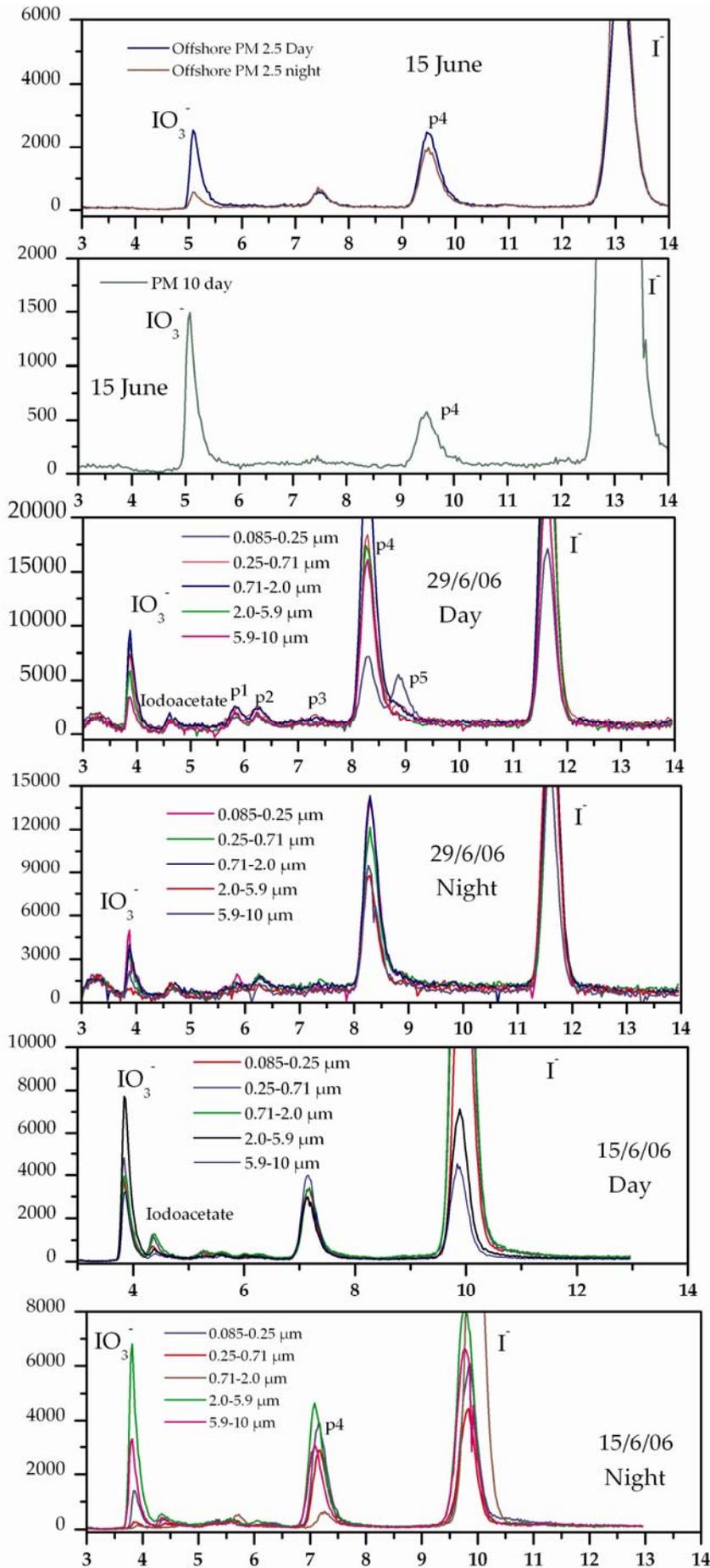
Sup. Fig. 10: IC-ICP-MS chromatograms of aerosol samples from Mace Head and offshore aboard the Celtic explorer.

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30   Sup. Fig. 11: PM 2.5 chromatograms of aerosols from Mace Head.
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