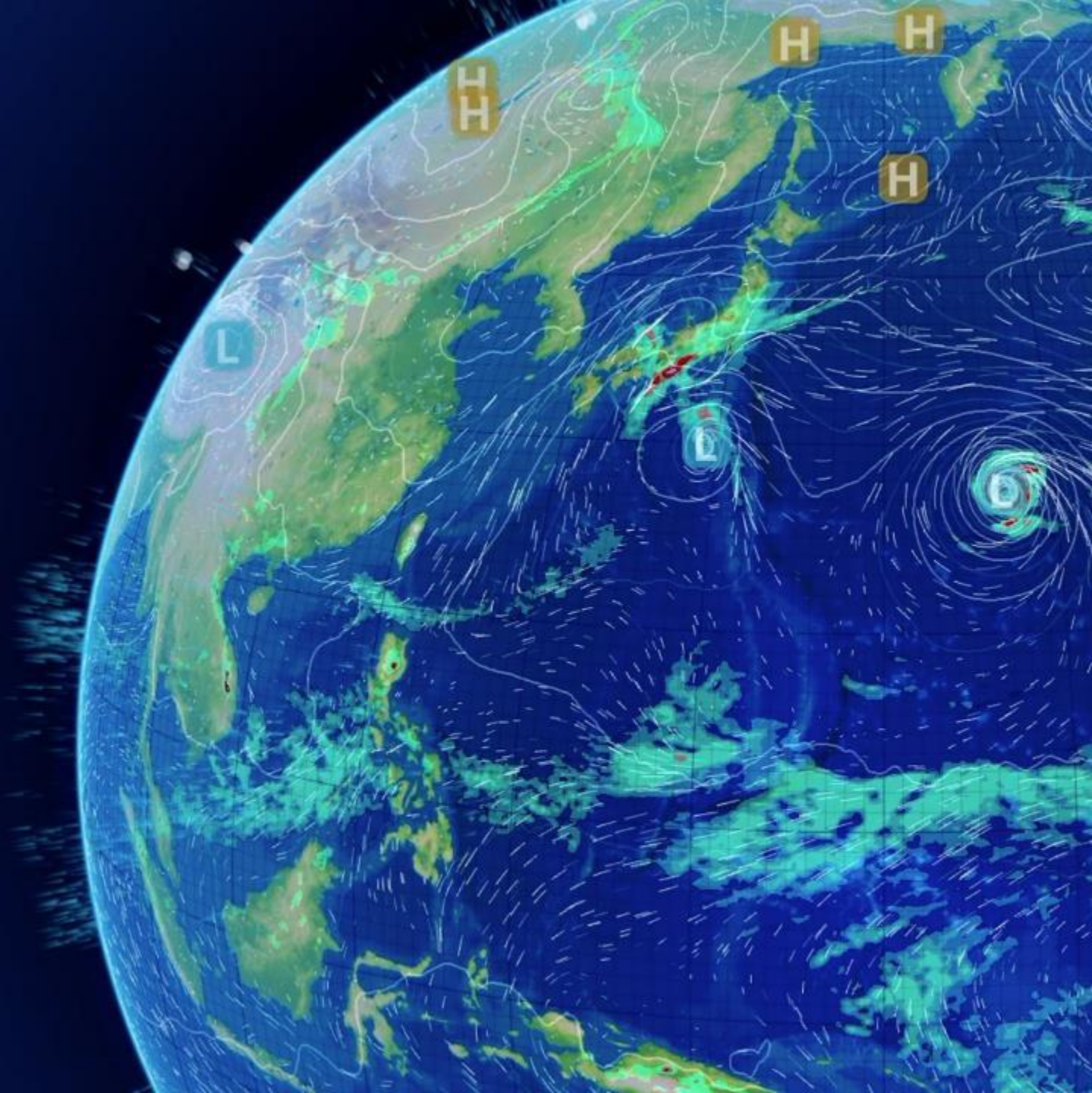


World Area Forecast System

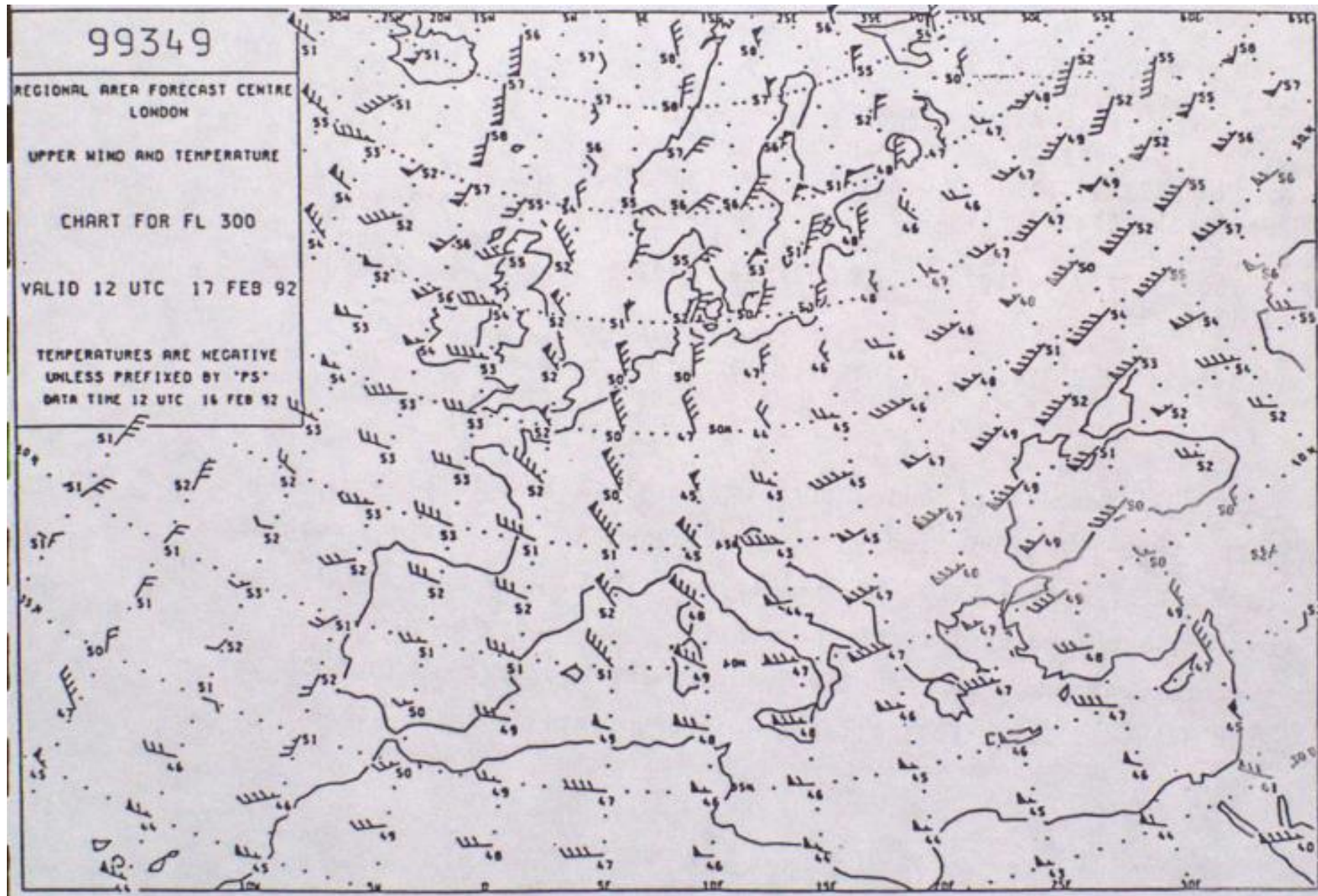


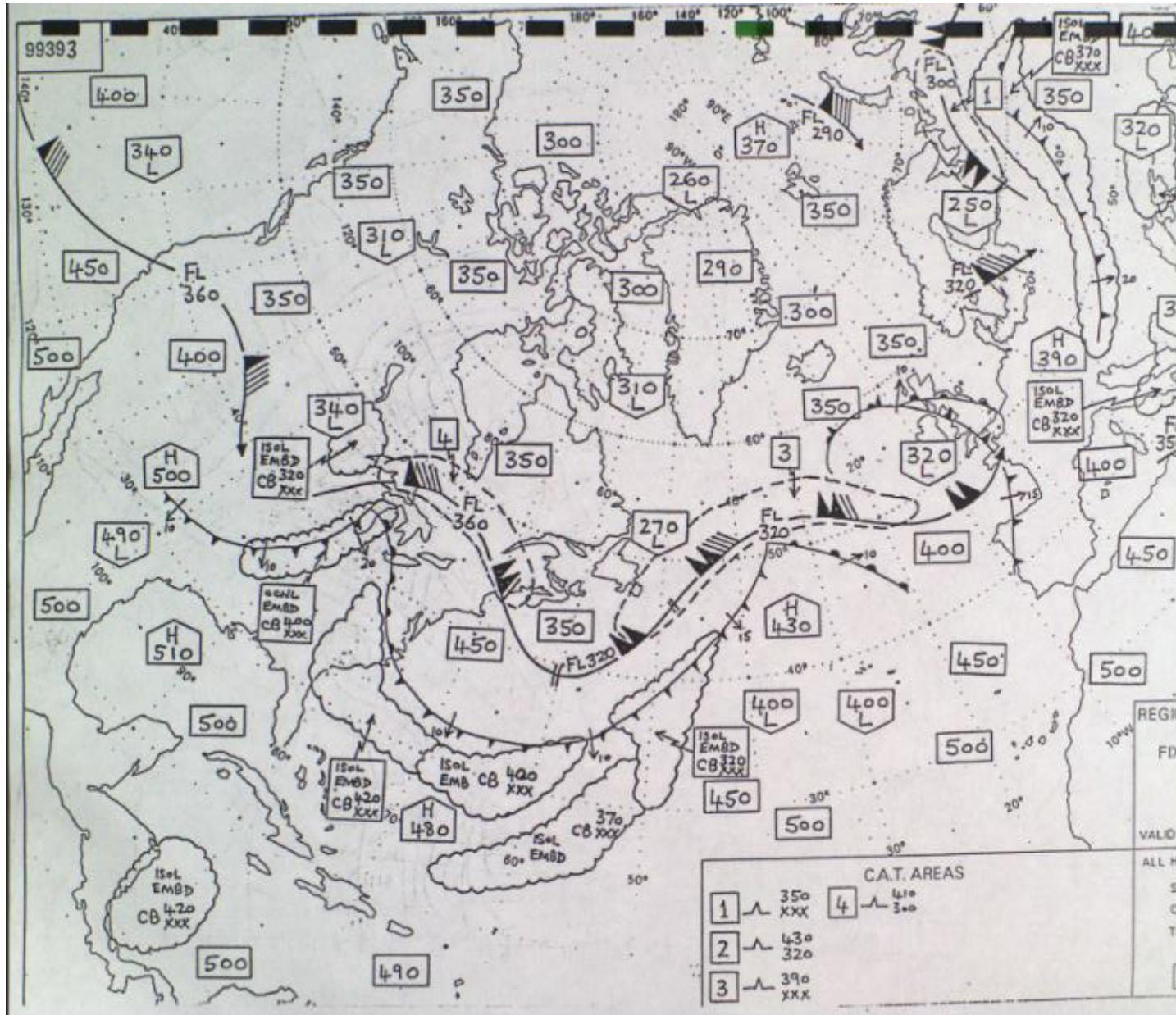
WORLD AREA FORECAST SYSTEM 40th ANNIVERSARY

November 1984:

- *WAFS provision added to ICAO Annex 3 for the first time*
- *Data sets comprised of*
 - *Wind and temp gridded data for T+12, T+18, T+24 and T+30 for 10 levels at 2.5 x 5-degree resolution. Issued for 00UTC and 12UTC model runs daily*
 - *Sets of wind and temperature charts*
 - *T+24 high level SIGWX forecast*
- *Initially data provided to a network of Regional Area Forecast Centres over early data gateways, the GTS and fax. The first satellite transmissions followed in 1994 with SADIS and the predecessor to WIFS.*







WAFC SIGWX
chart from 1992

WAFS GRIDDED DATA UPGRADE

Annex 3 Amendment 82, introduces higher resolution WAFS data into the regulations on 27 November 2025. WAFC’s delivered this capability in February/March 2024.

New 0.25 degree data sets

Forecast Timesteps:

T+06 to T+24 at 1-hourly intervals

T+27 to T+48 at 3-hourly intervals¹

T+54 to T+120 at 6-hourly intervals²

¹Icing, Turbulence and Cumulonimbus stops at T+48

²WAFC London data past T+66 is only produced for the 00Z and 12Z model runs

Wind U/V - 56 vertical levels from FL050 to FL600
Temperature - 56 vertical levels from FL050 to FL600
Geospatial Height - 56 vertical levels from FL050 to FL600
Relative Humidity - 14 vertical levels from FL050 to FL180
Tropopause height and Tropopause temperature
Max wind height, and max wind u/v
Icing Severity - 26 vertical levels from FL050 to FL300
Turbulence Severity - 36 vertical levels from FL100 to FL450
Cumulonimbus Extent, Base and Top

WAFS SIGWX UPGRADE

Annex 3 Amendment 82, introduces higher resolution WAFS data into the SARPS in November 2025. WAFC’s delivered this in February/March 2024.

1.25-degree data sets maintained for those who need them

Forecast Timesteps:
T+06 to T+36 at 3-hourly intervals

Wind U/V - 17 vertical levels from FL050 to FL600
Temperature - 17 vertical levels from FL050 to FL600
Geospatial Height - 17 vertical levels from FL050 to FL600
Relative Humidity - 5 vertical levels from FL050 to FL180
Tropopause height and Tropopause temperature
Max wind height, and max wind u/v

WAFS GRIDDED DATA UPGRADE

*Annex 3 Amendment 82 also introduces new **multi-timestep WAFS SIGWX** forecasts into the SARPS in November 2025. WAFC's delivered this on 8 April 2025.*

Multi-timestep SIGWX:

- *T+6 to T+48 at 3-hourly intervals*
- *New IWXXM format*
- *No briefing charts provided by the WAFCs.*

Where to get the data - SADIS

New SADIS API

- Contains the full, new, higher resolution WAFS data sets
- Contains the new multi-timestep WAFS SIGWX forecasts

Original SADIS FTP

- Contains the 1.25-degree WAFS gridded data sets and a limited set of 0.25 degree hazard data (fewer levels and timesteps).
- Contains the T+24 SIGWX forecast charts and BUFR data
- Will be retired in November 2028

Workshop topics

- 1) WAFC Gridded data sets – what are they telling you?
- 2) Real data WAFS gridded data
- 3) New WAFS SIGWX data sets
- 4) SADIS API – how does it work, and how do you use it (including demonstration)
- 5) SADIS API registration

BONUS topic

New Quantitative Volcanic Ash (QVA) API