

# **Validation of atmospheric profiles from MIPAS and SCIAMACHY with the radiosounding profiles**

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The ENVISAT was launched in 2002. Three of its instruments offer the scientific community unique opportunities for atmospheric research. The radiosoundings, as part of the daily worldwide routine measurements are reliable source of data for the validation of atmospheric profiles. Radiosonde data from three Polish upper-air stations (Legionowo, Wroclaw, Leba) are used for validation of temperature, pressure and water vapour profiles (twice daily routine) and from one station (Legionowo) for validation of ozone profiles (weekly routine). To improve the effectiveness of validation, additional ozone soundings are performed in close collocation with relevant satellite observations. Nine validation ozone soundings were performed in 2003, eighteen in 2004 and forty in 2005. The radiosoundings selected for the validation must have good time and space coincidence with satellite measurements (closer than 3 hours and 200 km). The first validation was performed for MIPAS for the year 2003 (78 PTU and 9 ozone profiles). The radiosounding profiles are available up to altitude of about 35 km while the MIPAS profiles from the altitude approximately 12 km, at 8 levels to the height of 35 km with, resolution about 3 km so, only stratospheric profiles can be evaluated. The investigation was executed for 'original' and smoothed radiosounding profiles with 3 km span. Preliminary results of MIPAS validation indicate that satellite pressure and ozone concentration profiles are well correlated with radiosounding profiles, while temperature profiles do not correlate well. The SCIAMACHY and MIPAS validation results of all synchronous satellite and radiosounding profiles for the years 2003-2005 will be presented.