Status of Operational suite in Croatia

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1. INTRODUCTION

There were no important changes in the Croatian operational ALADIN suite. Operational version is still based on AL25T1_op2. More details in Newsletter 26.

Model versions 28T1 and 28T3 were not ported on SGI.

Prague physics package + SLHD was ported in Zagreb. Configuration 001 is ~75 % more expensive in time consumption and ~50 % for memory consumption, what is significantly more than on Prague SX6. At the moment we are not sure what is the reason for such a big difference in time and memory consumption.

Results for one of the performed tests for a "fog and stratus" case is shown below.

2. TEST OF NEW CZECH SETUP

First tests are very promising for the studied "fog and stratus" case.

Example of verification plots for two points (one in inland, Zagreb-Pleso, and one on seaside, Dubrovnik-Aerodrom) for the 14th of December, 2004, start at 00 UTC, are presented hereafter.
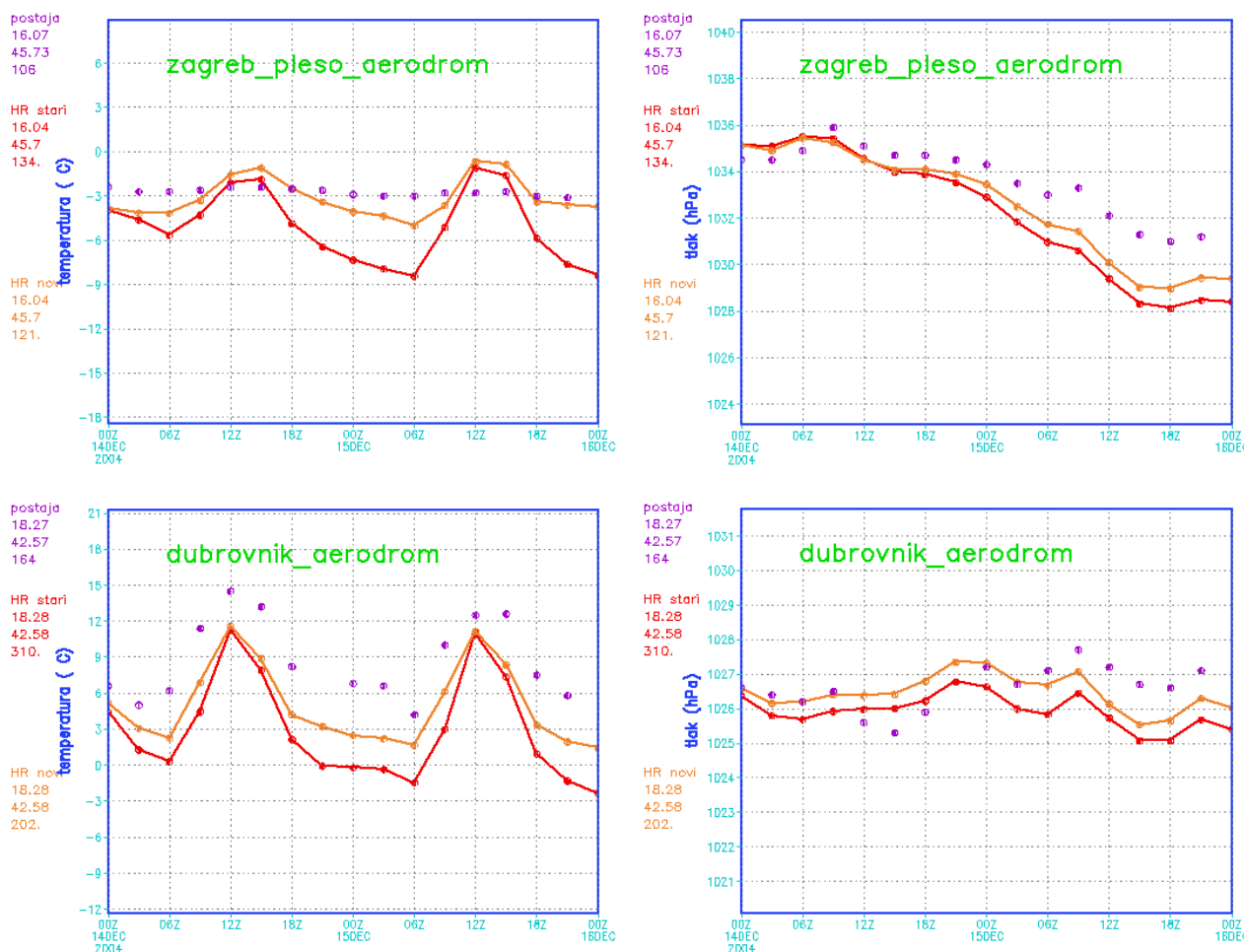

Figure 1. Comparison of old set-up (red), new Czech set-up (orange) and SYNOP data (violet points)

The amplitude of the error on 2-m temperature is significantly reduced for station Zagreb-Pleso and results for sea-side station are better too.

There is a problem in anticyclonic situations, the model has a tendency to reduce the high pressure. Even for this problem the new setup gives better results. Higher SIPR (semi-implicit reference pressure) further improves the result but does not cure it completely.

More case studies are under way. Reduction of time and memory consumption or upgrade of the computer is needed to put the new Czech setup in operational suite.

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