

S5P-TROPOMI AER_LH Product

Version 2.6.0

Martin de Graaf (KNMI)

Main changes:

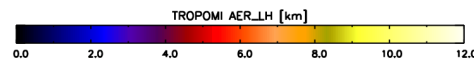
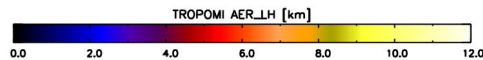
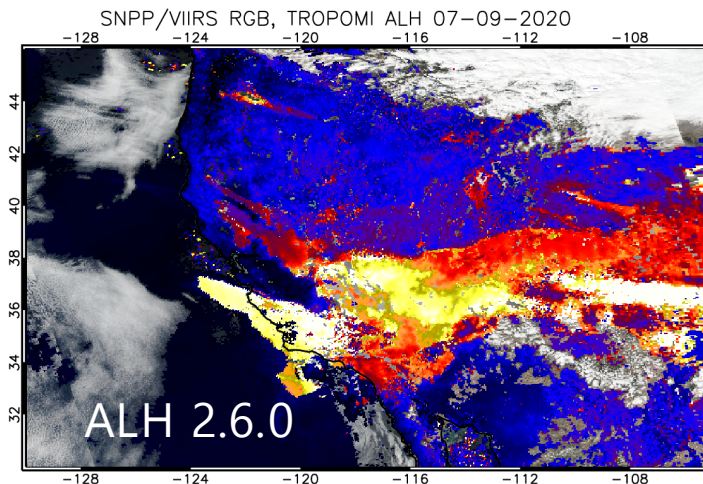
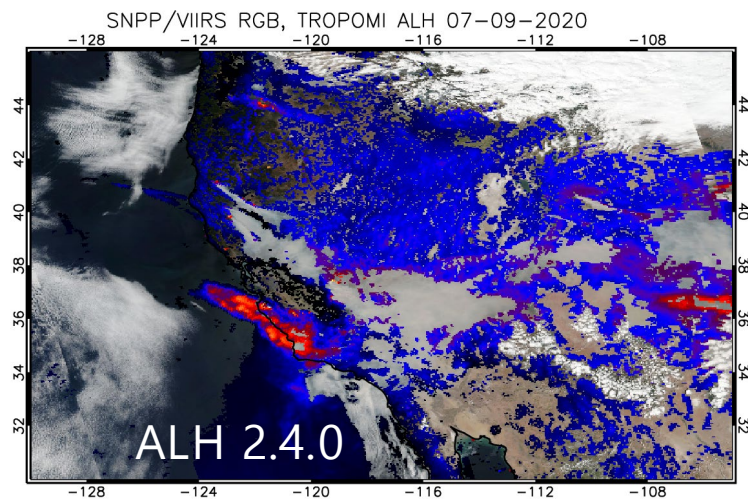
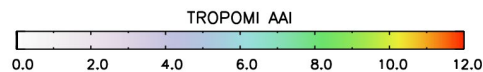
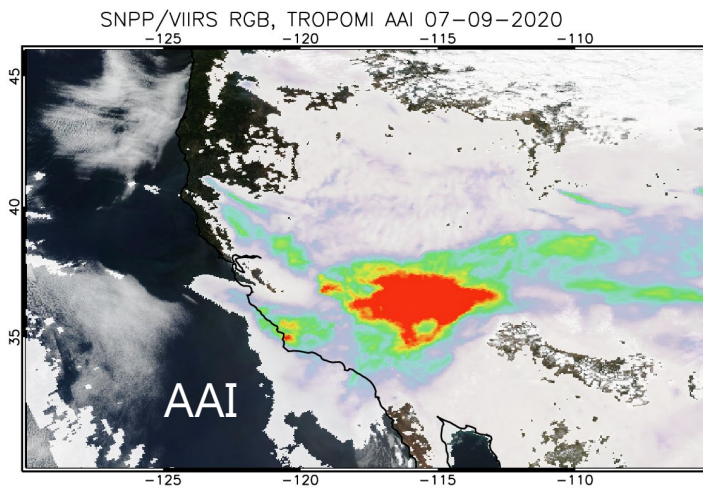
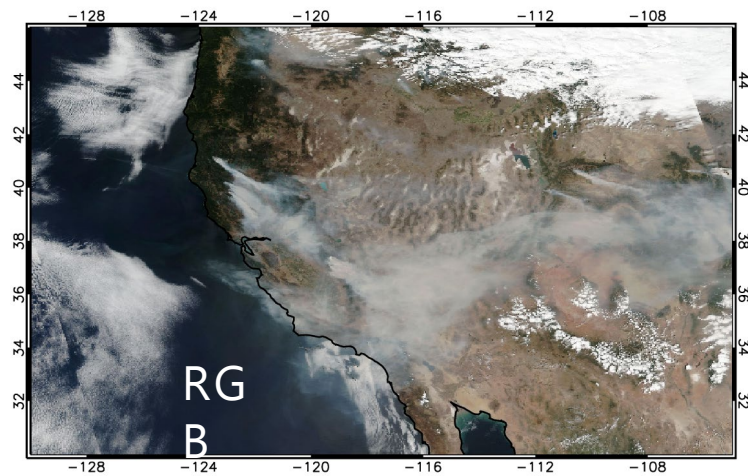
Surface albedo added in Optimal Estimation Fit state vector for improved ALH over land
Updated quality assurance (QA)



TROPOMI

Main test case:
Smoke over California on
7 Sept. 2020

Much better coverage over
land of dense plume from
wildfires

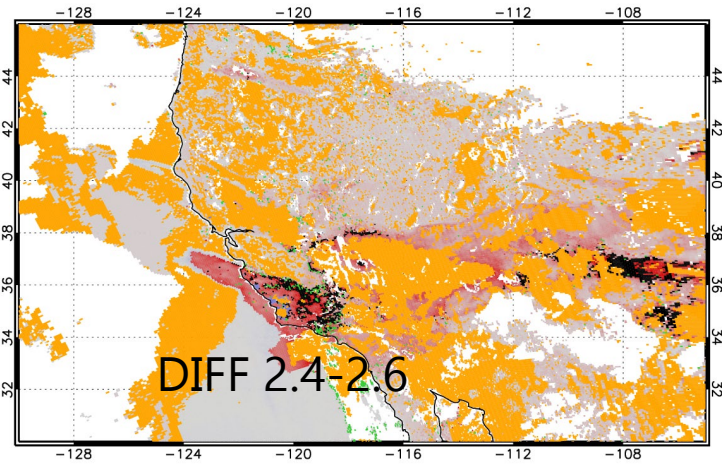




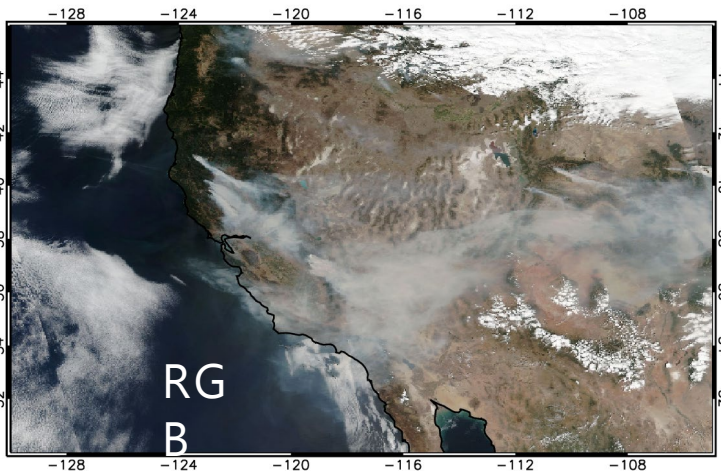
Main test case:
Smoke over California on
7 Sept. 2020

Mostly unchanged plus
newly converged pixels.
Lagre difference in
thick/high altitude plumes.

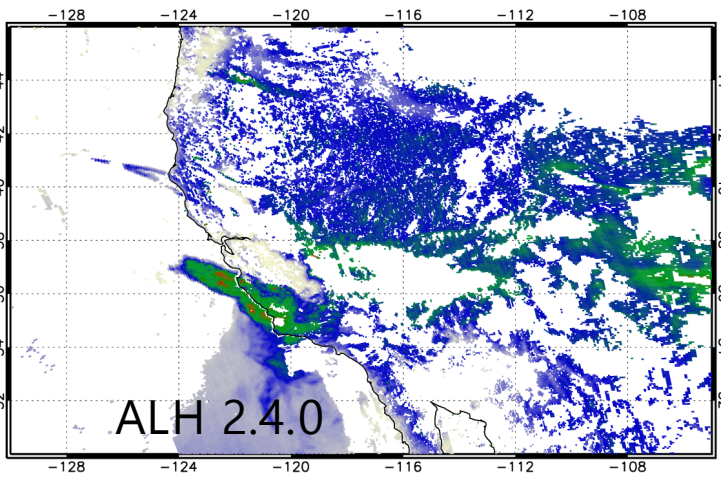
S5P/TROPOMI AER_LH RPRO V2.4.0-TEST V2.6.0 difference 07-09-2020



TROPOMI AER_LH RPRO V2.4.0-TEST V2.6.0 diff [km]
TEST V2.6.0 only -12.0 -8.0 -4.0 0.0 4.0 8.0 12.0 RPRO V2.4.0 only

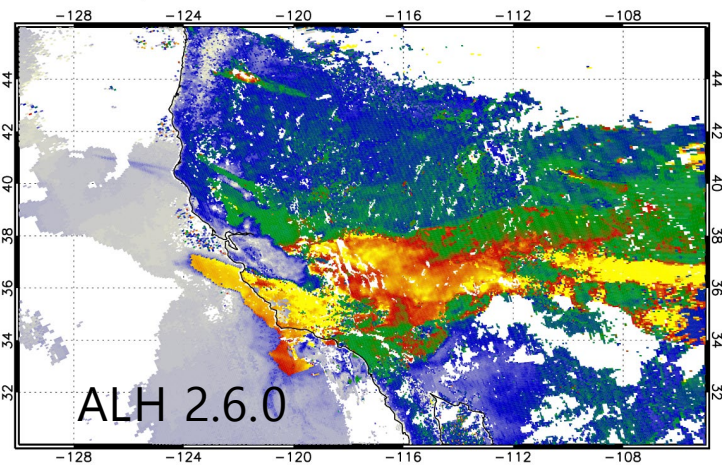


S5P/TROPOMI AER_LH 07-09-2020 RPRO V2.4.0



TROPOMI AER_LH [km]
0.0 2.0 4.0 6.0 8.0 10.0 12.0

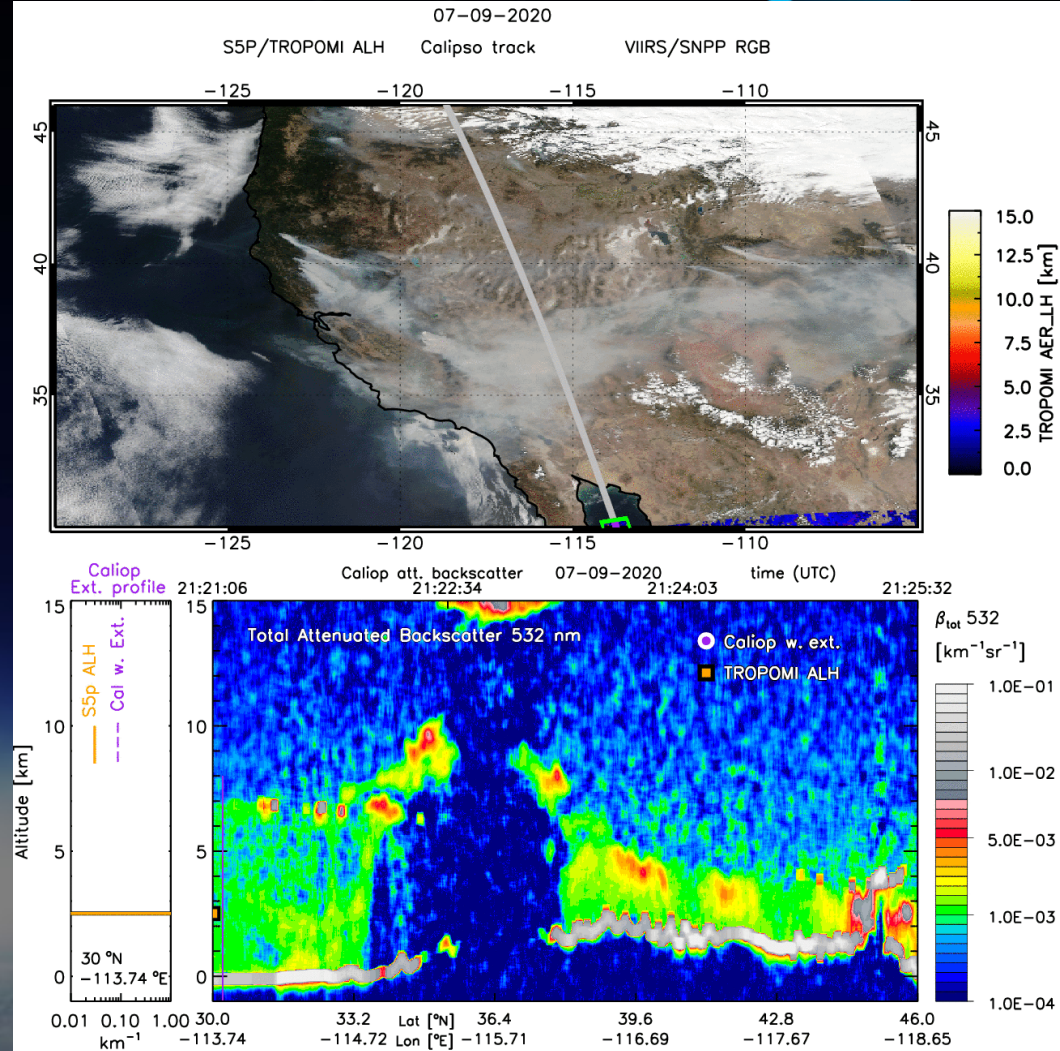
S5P/TROPOMI AER_LH 07-09-2020 TEST V2.6.0



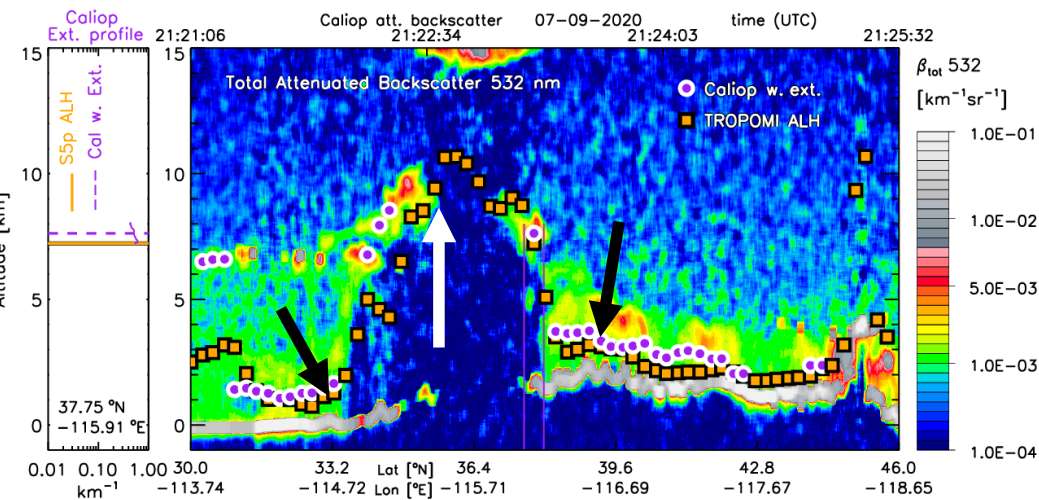
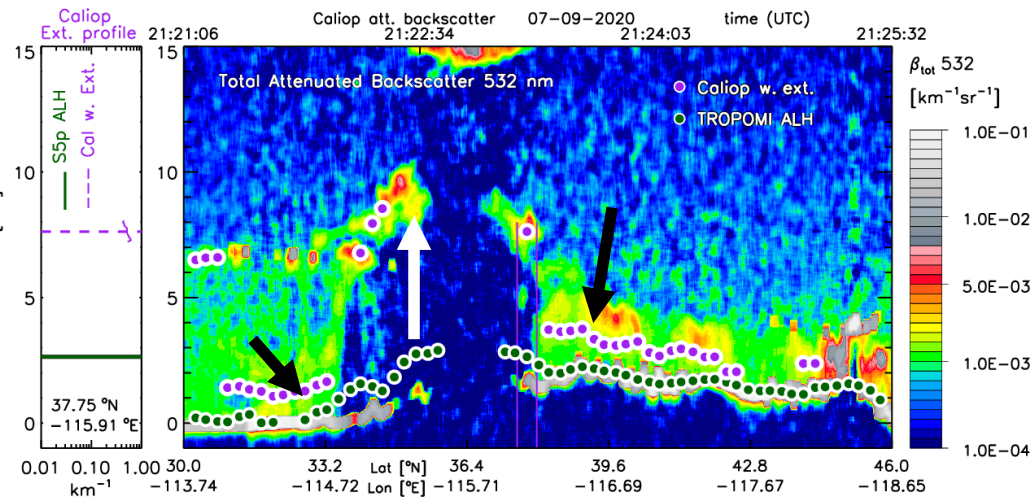
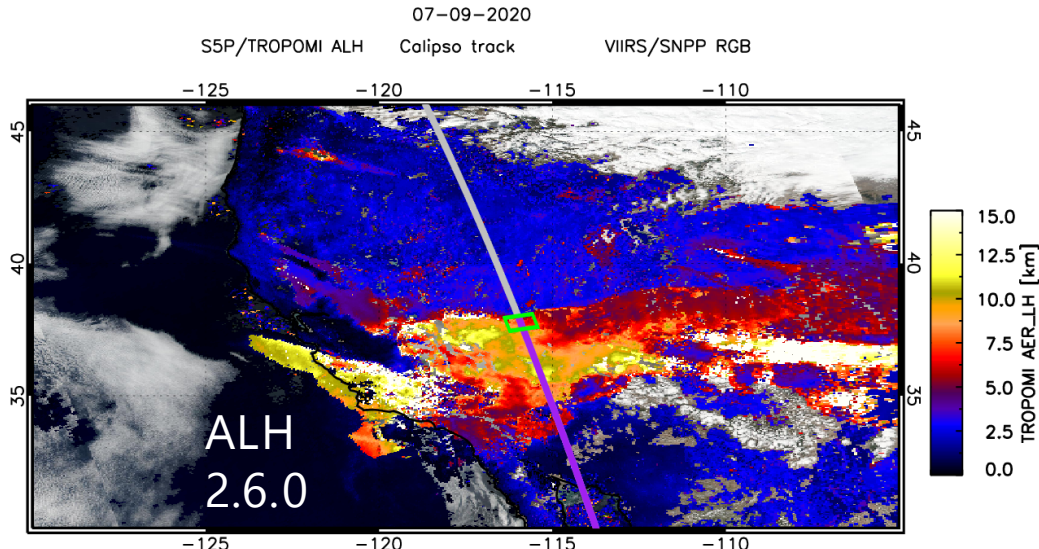
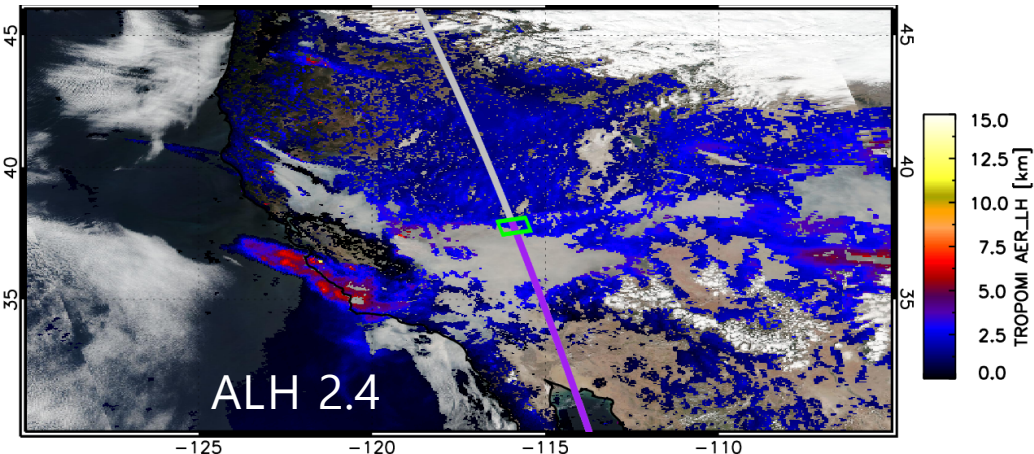
TROPOMI AER_LH [km]
0.0 2.0 4.0 6.0 8.0 10.0 12.0

Main test case:
Smoke over California on 7 Sept. 2020

Initial validation of ALH (orange squares) with Caliop weighted extinction (purple dots) looks very good.



Comparison with Caliop looks better than previous version



Comparison with Caliop looks better than previous version



TROPOMI

