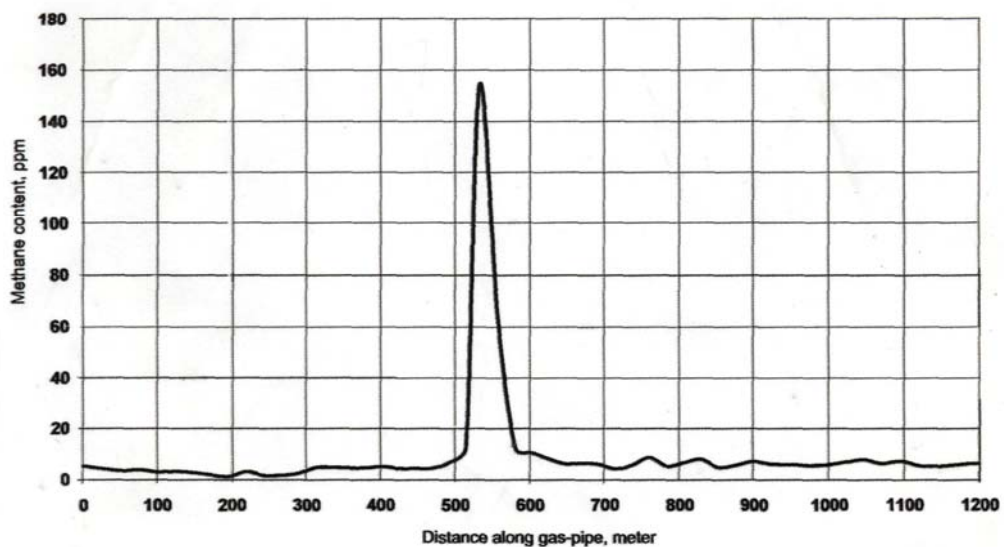


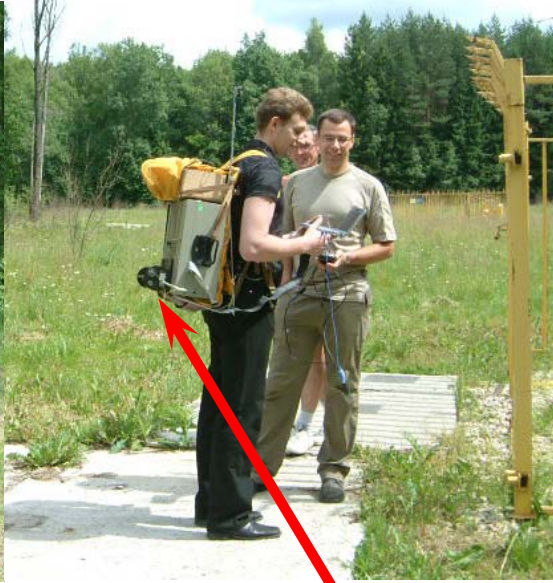
Helicopter based methane detector with Chernin multipass cell



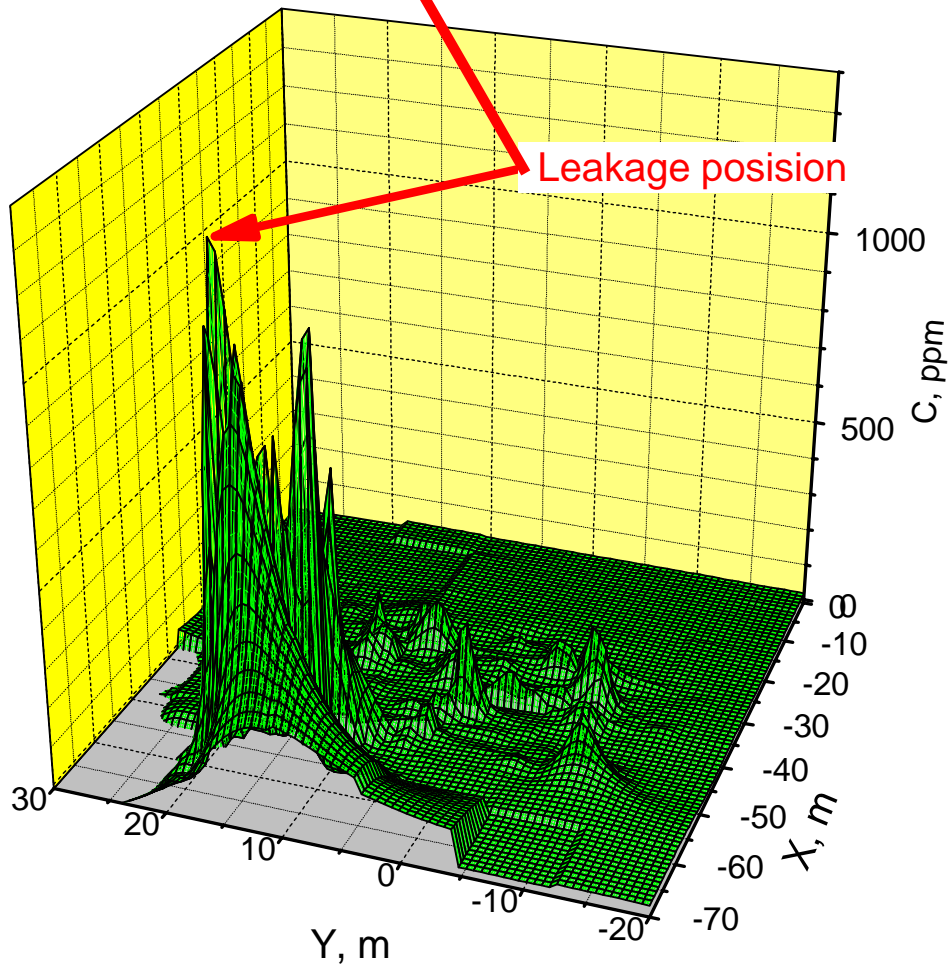
Helicopter and system view before take off and in flight.



Gas leakage registration near Chaikovskaya compression station (Perm region, Ural). P.Filipov, Institute of Chemical Physics, Moscow.

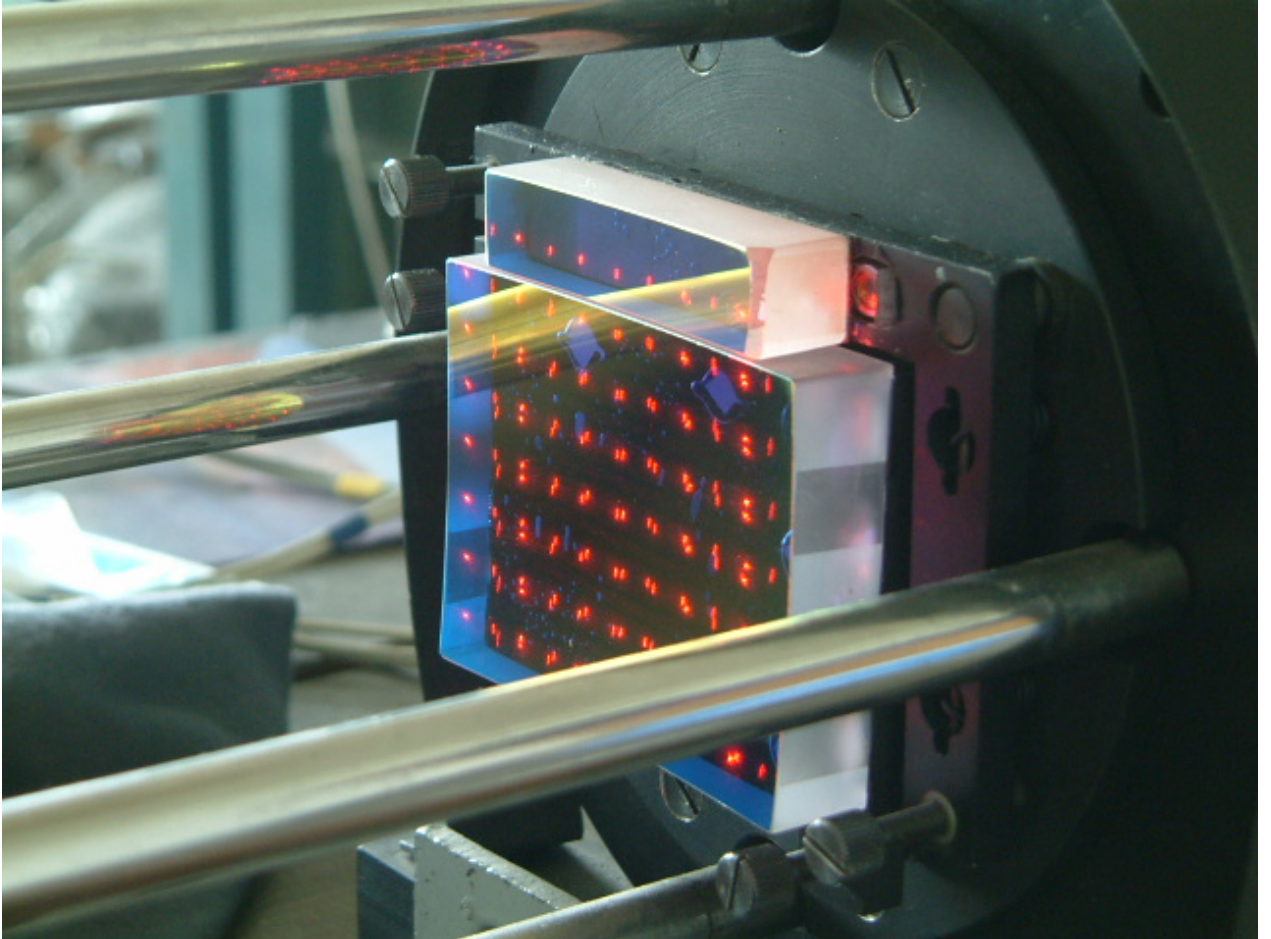


Chernin multipass cell



Universe Optical Anisotropy

This work was initiated by the late Prof. P.Franken from Arizona University.



Multipass cell with 0.5 m baselength and mirrors with 99.96 % reflectivity; 282 passes, 141 m.

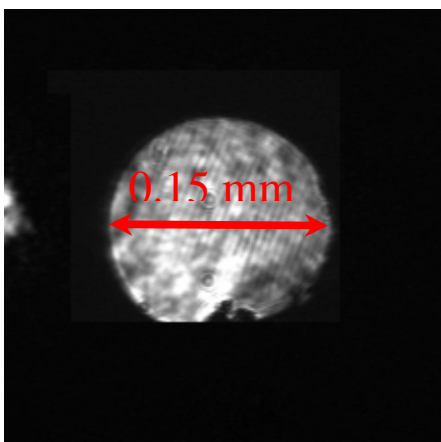


Image of 150 μ hole after 626 passes, 313 m.

$\Delta c/c \sim 10^{-11}$ for 60 msec

For longer measurements new cell generation with monolith mirrors ensemble was developed