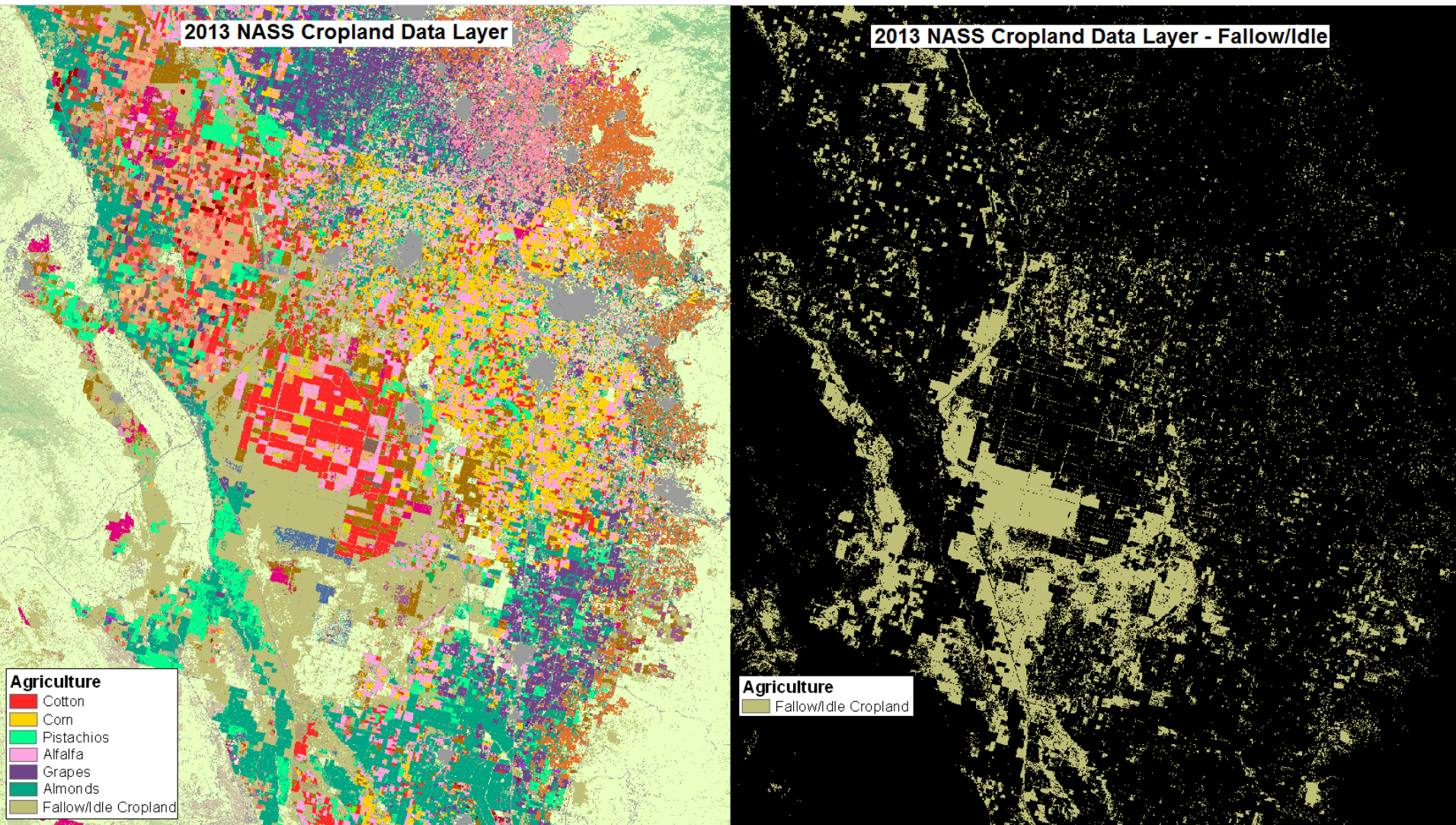


The Fallow/Idle Mask created from CDL

Binary mask of Fallow/Idle classified pixels



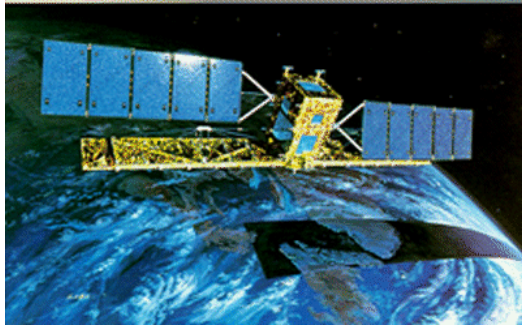
Idle mask recreated during summer/fall growing season

June – August – September – October Verdin, J., USGS, NIDIS

Subsidence Mapping & Groundwater Storage Changes



PALSAR, Radarsat (L-band Synthetic Aperture Radar)

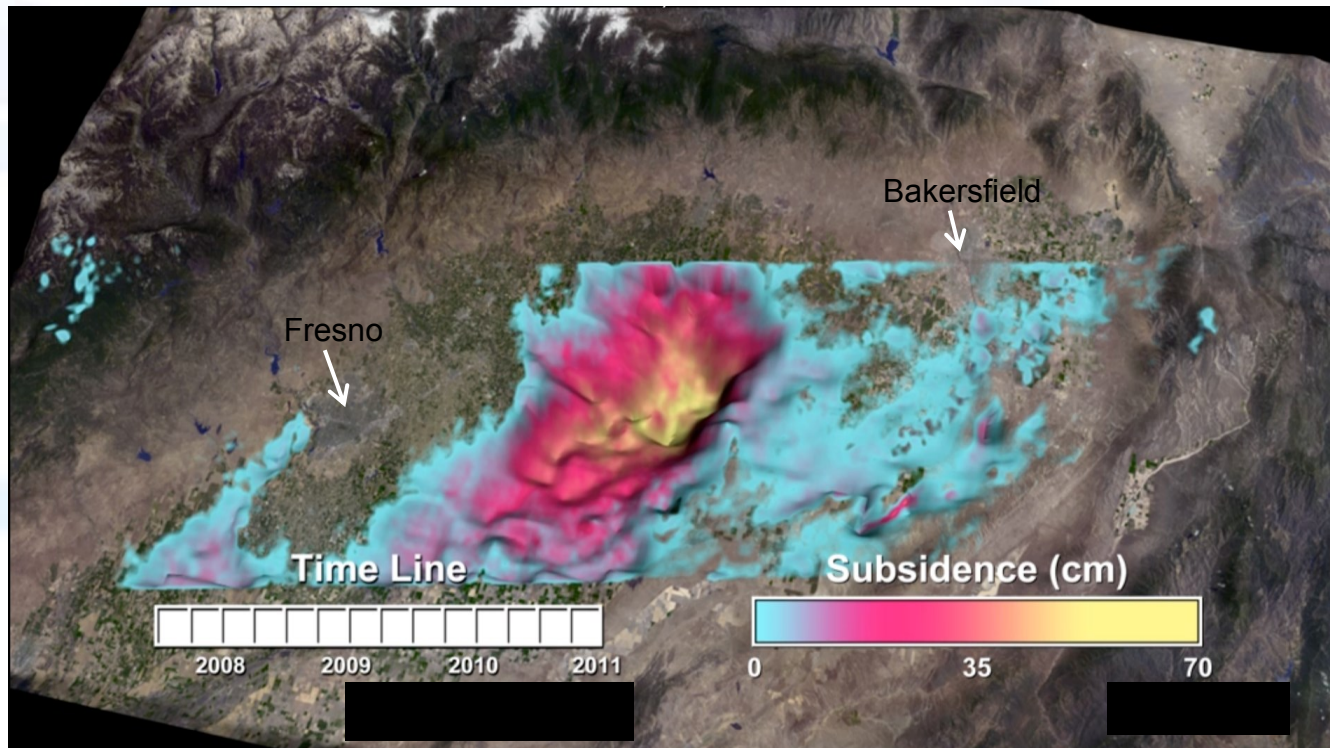


Subsidence mapping over large areas with inch-scale vertical accuracy

Satellite provides nearly global coverage at ~ once/month frequency
--International Partner missions PALSAR – Japan, Radarsat – Canada

Planned for this year:

San Joaquin & Sacramento Valleys subsidence update (through Fall 2014)



Subsidence mapping supports

- * Groundwater withdrawal/recharge monitoring
- * Infrastructure risk assessment (e.g. CA high speed rail)

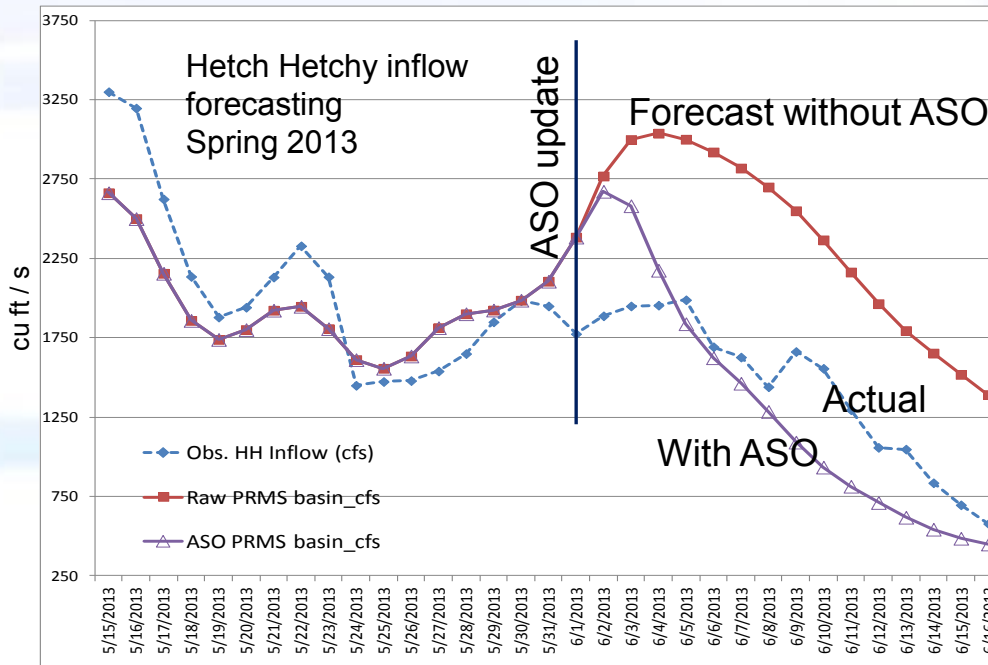
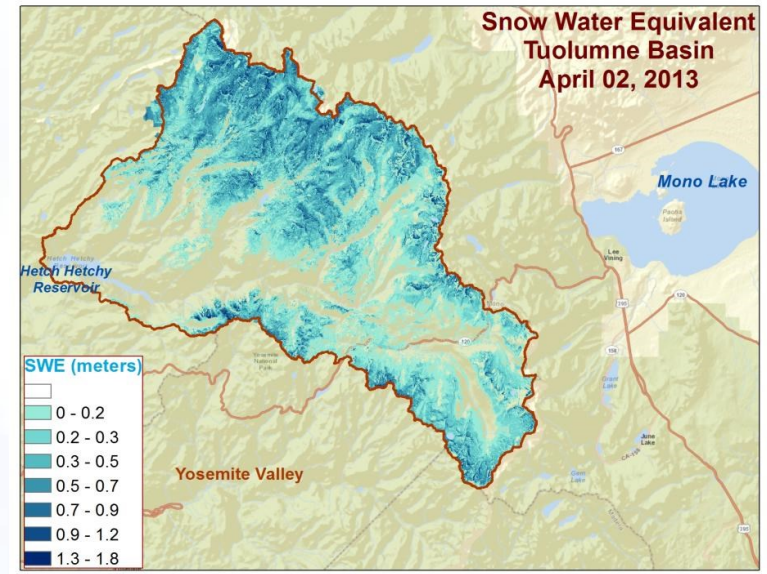


WATER RESOURCE RESEARCH AND APPLICATIONS FROM
AIRBORNE OBSERVATIONS

Forecasting Snowmelt Inflow and Timing Airborne Snow Observatory (LiDAR & spectrometer)



Snow Water Equivalent and albedo at meter-scale resolution for a 300k acre watershed with 24hr latency



Improved reservoir inflow forecasting supports

- * Water supply forecasting (for urban, ag use),
- * Hydroelectric production, and
- * Spill reduction / Infrastructure protection