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LAND COVER STATUS REPT.

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ATBD: Grade B

Concerns:

- ① NOVI-7_s thresholding is too simple
- ② Ecosystem classes could be different
- ③ Validation is difficult, but a better plan is possible

Procedure	Plumas	Cal Veg	Cal-Loveland
<u>Neural nets</u>	60-70%	In prog.	
<ul style="list-style-type: none"> • Spectral only • Comp. NDVI - - - - - 	In prog.	In prog.	
<u>Thresholding / Differencing</u>			
<ul style="list-style-type: none"> • Ramo's Rules, fixed thresholds • Ramo's Rules, iteratively adjusted thresholds • Ramo's Rules + local variations 	Low 60's % 60's %	Low 60's % 60's %	
<u>Clustering - Labeling</u>			
<ul style="list-style-type: none"> • Summer-winter NDVI comp <ul style="list-style-type: none"> - 174 clusters - 11 clusters • Halfdate set <ul style="list-style-type: none"> - 174 clusters - 11 clusters • Ts/NDVI ratio, 1st PC 			76% 71% 81% 69% 70-80%
<u>Computer Vision Algorithms</u>			
<ul style="list-style-type: none"> • NDVI, Ts composites - "Linear Machine" <ul style="list-style-type: none"> - Cross-validated - All 		70% 80-85%	
<u>Comments:</u>			
<ul style="list-style-type: none"> • <u>NDVI is not Algorithm required</u> 			

LAND COVER STATUS, CONT.

IGBP Product

- EDC to produce by continent, 1995-1998
- Unsupervised clustering on composited NDVZ
- ≈ 20 classes, approved by IGBP
- Clusters divided using T_s , elevation, other collateral data
- Labeling based on all collateral data obtainable
- MODIS can possibly aid in preparation...?

MODIS At-launch Land Cover Product

- IGBP Land Cover product as base
- Updated pre-launch by AVHRR, post-launch by MODIS using heritage algorithms
- 3-month revision for first $1\frac{1}{2}$ -2 yrs
- Change detection - reclassification algorithm TBD

MODIS "Post-Launch" Product

- Data accumulation starts at launch
- Use NN or CV classifier w/ global test sites
- Begin testing ASAP, production $1\frac{1}{2}$ -2 yrs post launch

LC STATUS, cont.Team Activities - CoordinationPast
Division

- Strahler - single-pixel, bottom-up approach; NN classification
- Running - thresholding/unit logic
- Justice / Townsend / DeVries - big pixel, top-down approach; GAC data → SIB & GCM interfaces
- Need new coordination plan
- Need LC meeting, next 4-6 wks

Validation

- Test sites now critically important
- Landsat PF/modis test sites needed ASAP
- IGBP Confidence sites also needed
- Possible role for new Team member here?