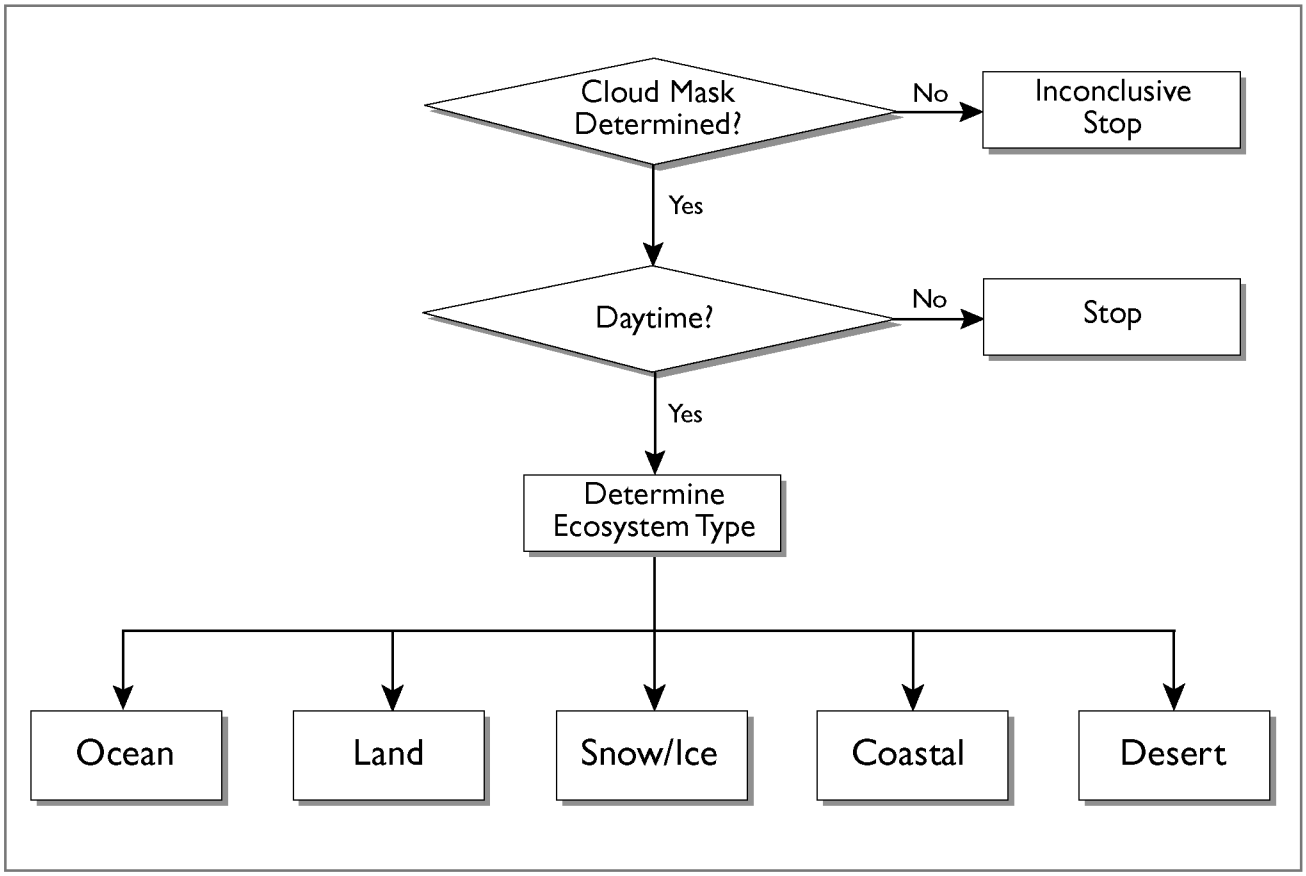
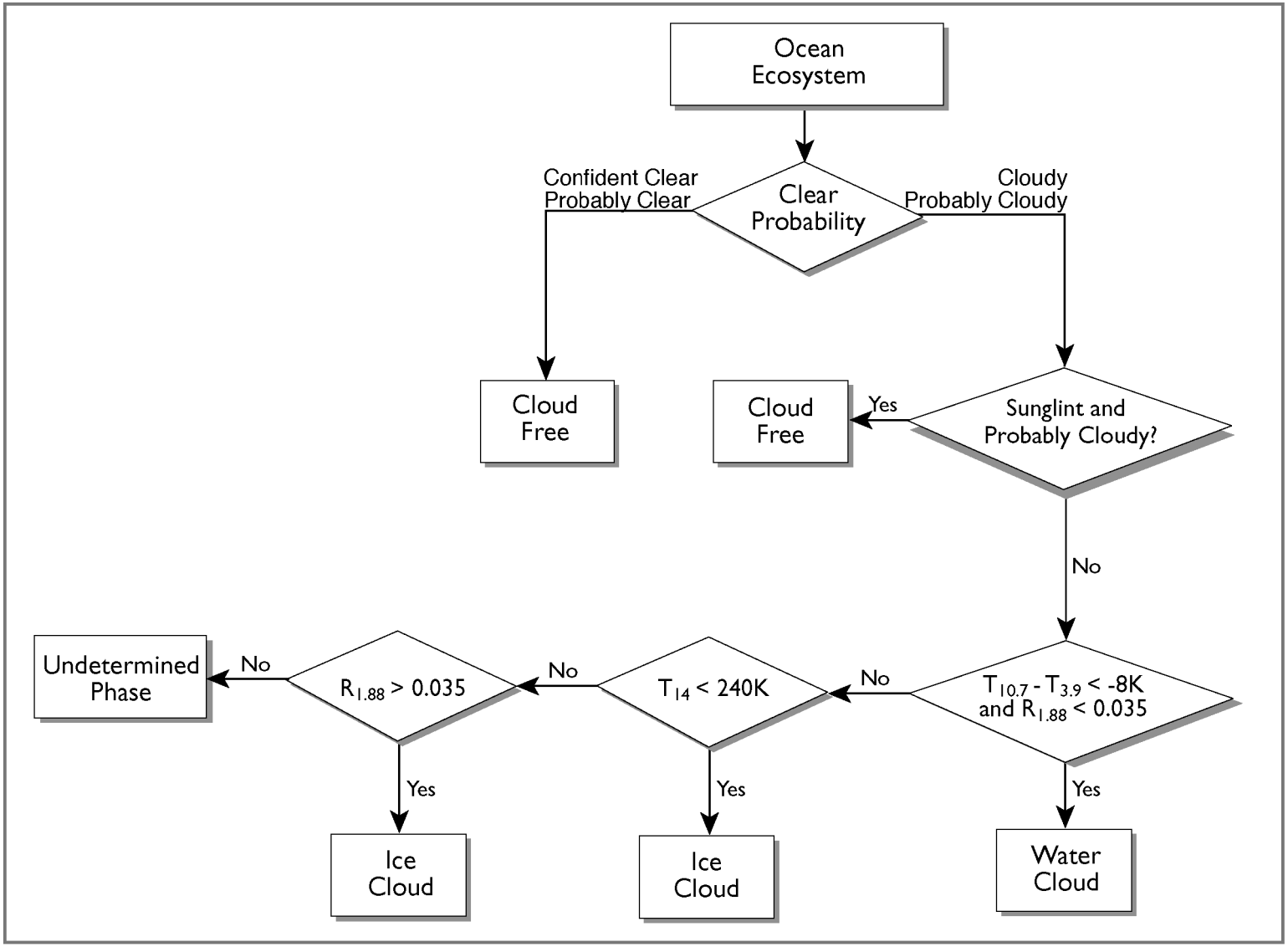
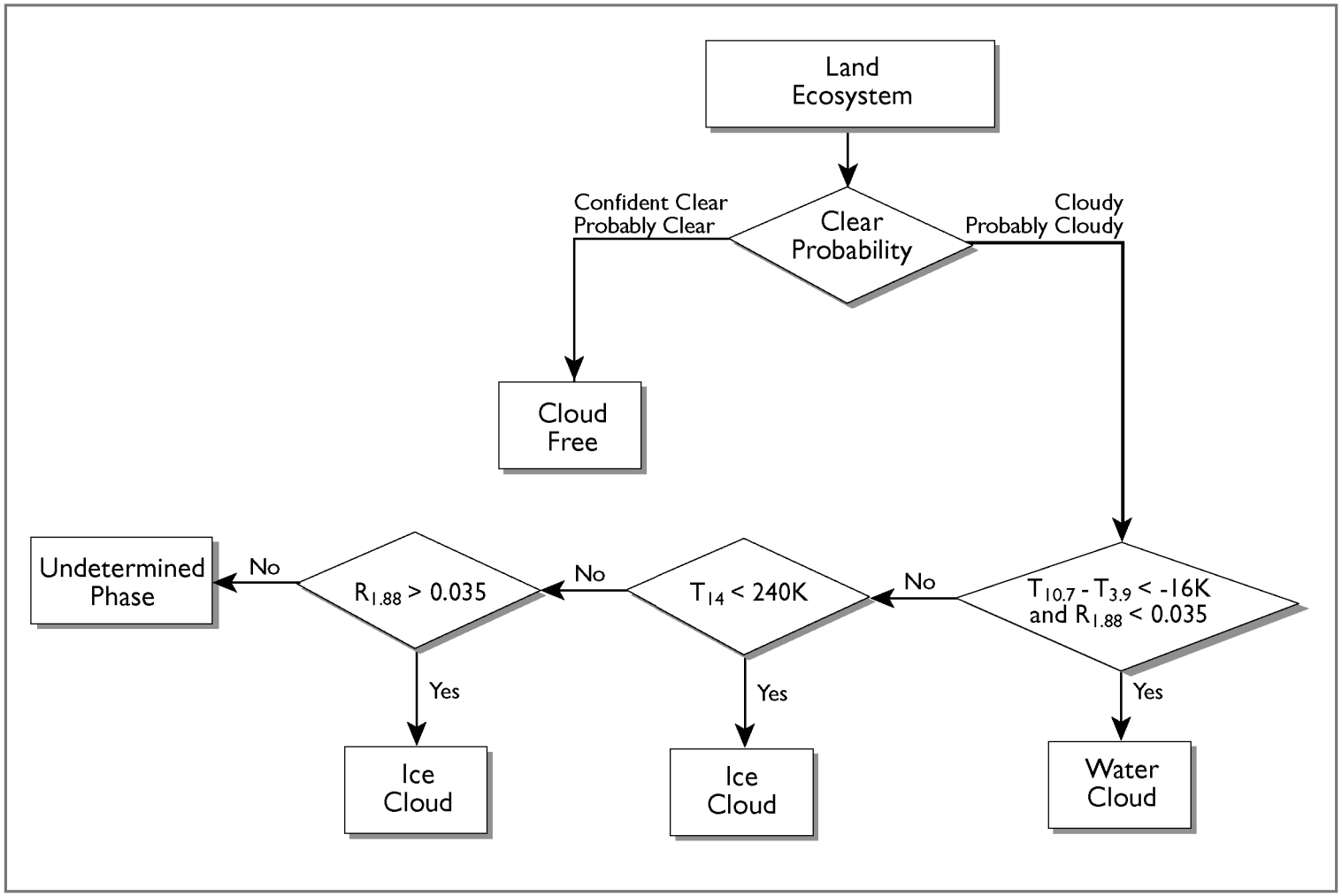
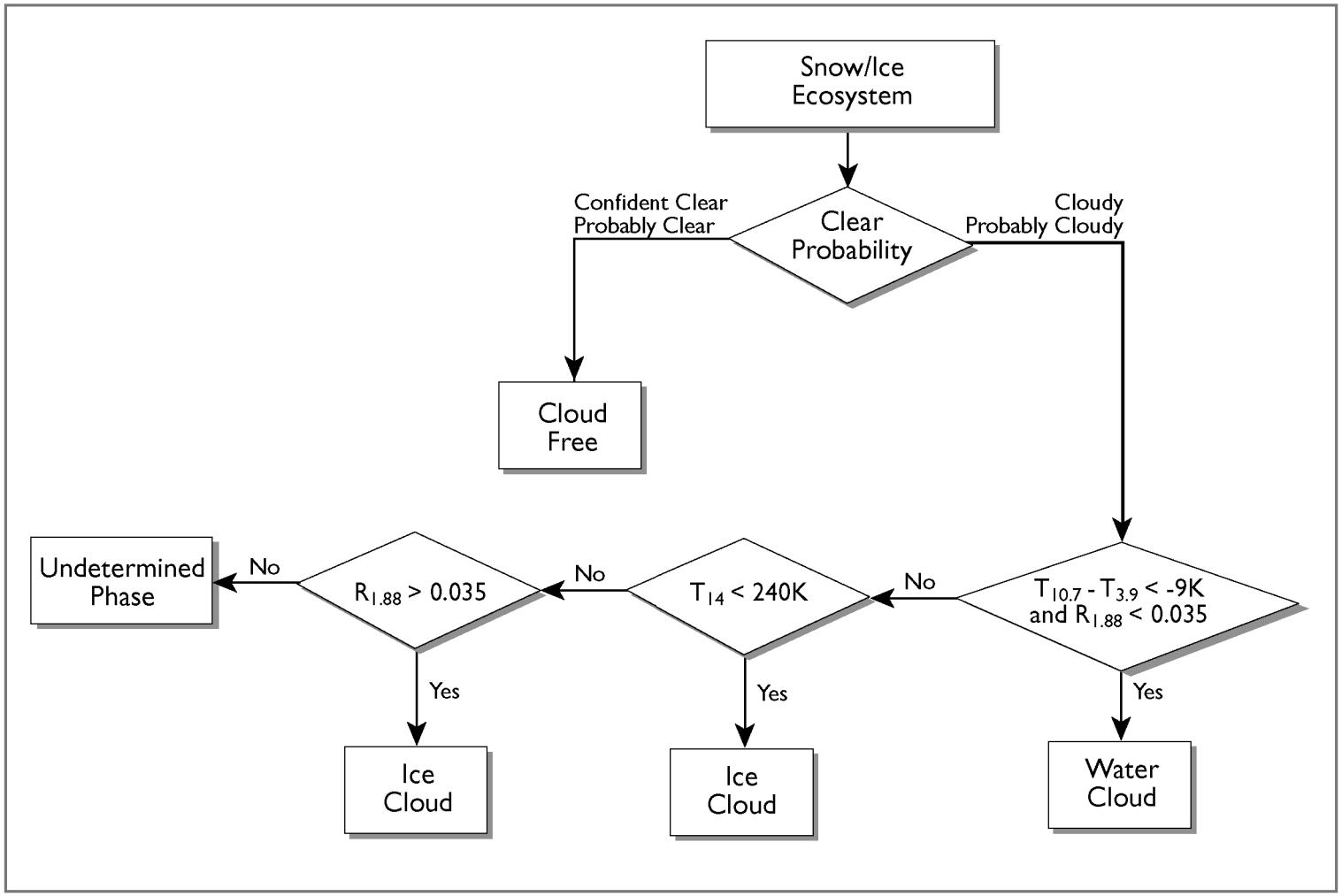
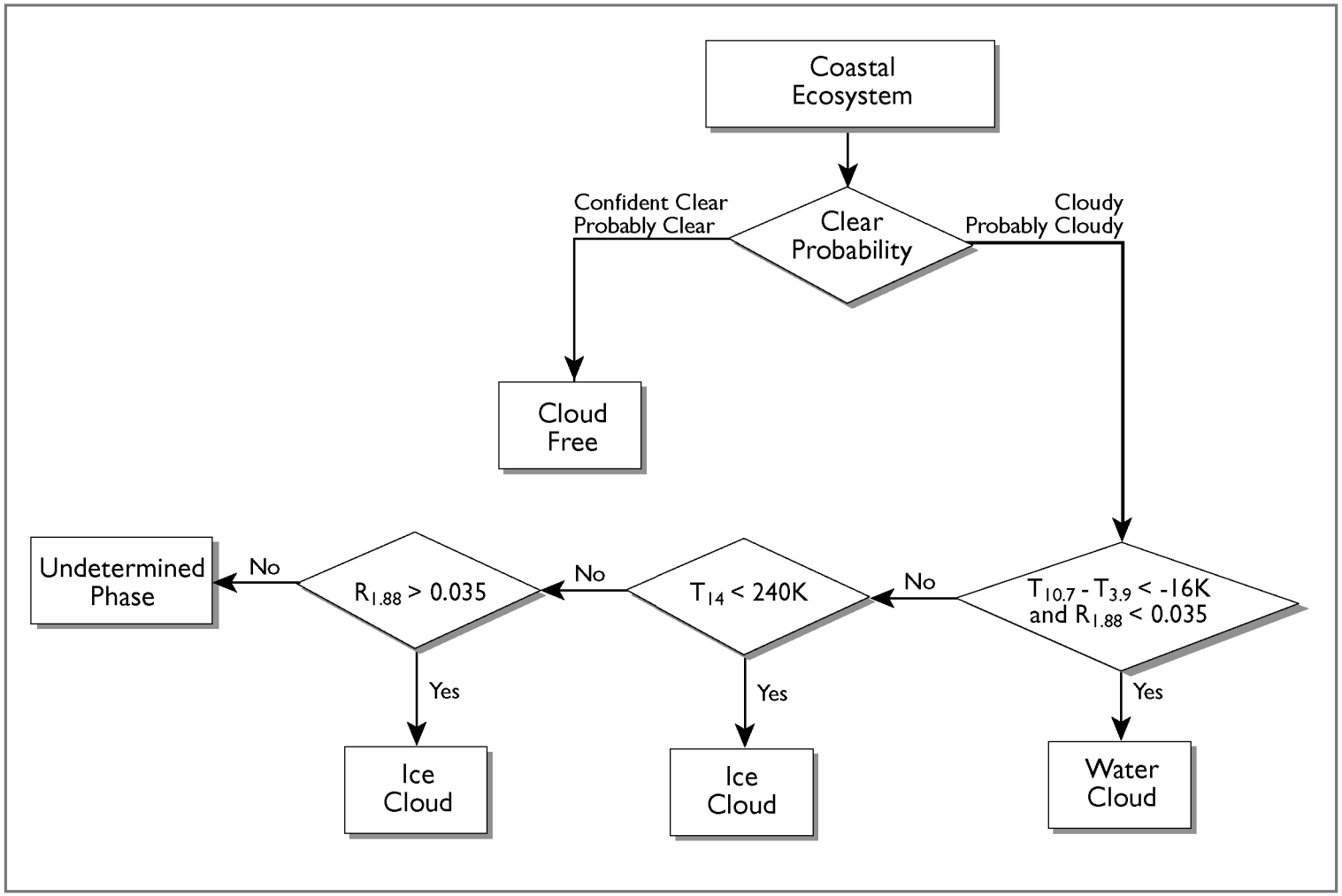
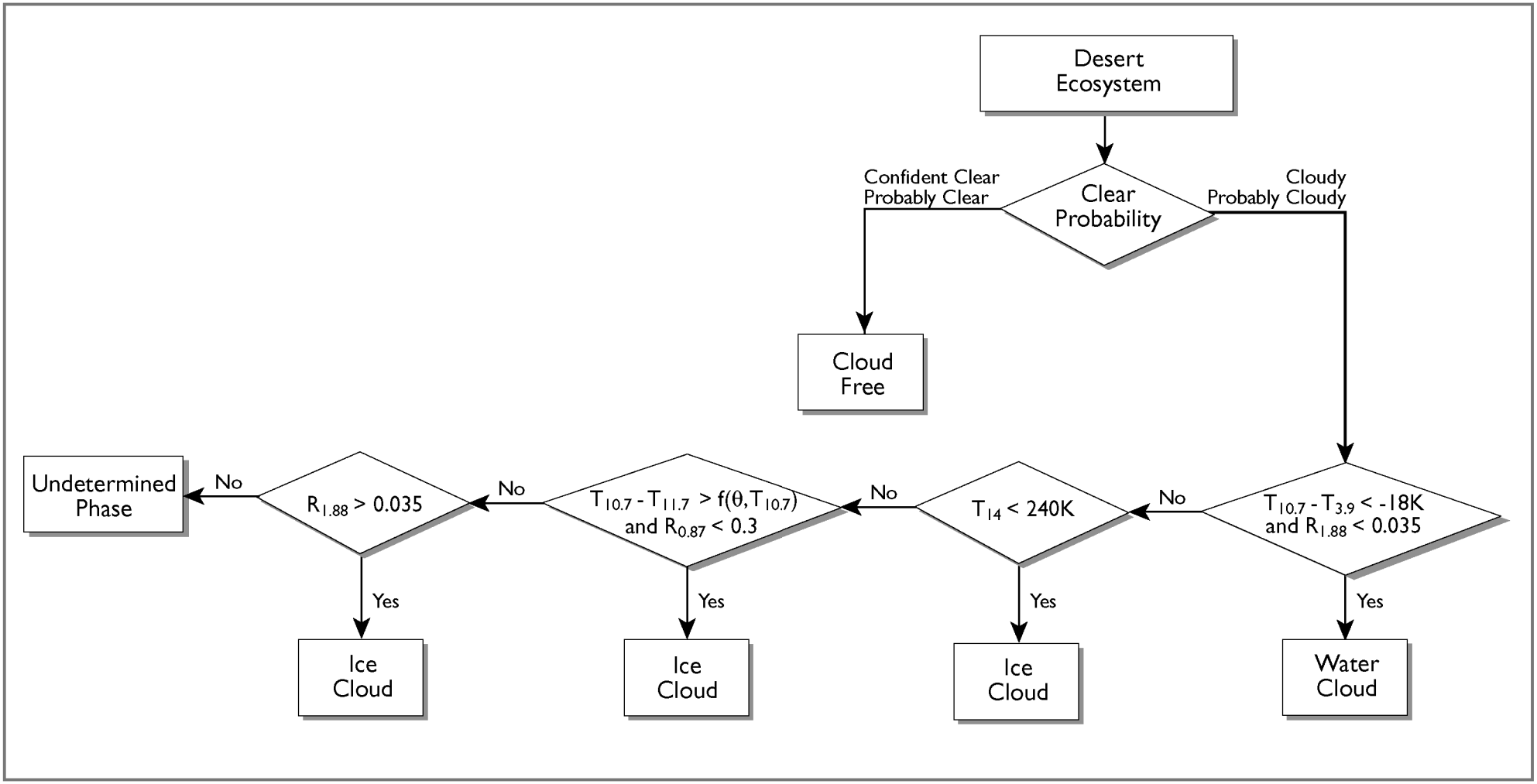

Cloud Mask Determined?
No
Inconclusive Stop
Yes
Daytime?
No
Stop
Yes
Determine Ecosystem Type
Ocean
Land
Snow/Ice
Coastal
Desert


Ocean Ecosystem
Clear Probability
Confident Clear
Probably Clear
Cloudy
Probably Cloudy
Cloud Free
Cloud Free
Yes
Sunglint and Probably Cloudy?
No
Undetermined Phase
No
$R_{1.88} > 0.035$
No
$T_{14} < 240K$
No
$T_{10.7} - T_{3.9} < -8K$ and $R_{1.88} < 0.035$
Yes
Yes
Yes
Ice Cloud
Ice Cloud
Water Cloud


Land Ecosystem
Clear Probability
Confident Clear
Probably Clear
Cloudy
Probably Cloudy
Cloud Free
$T_{10.7} - T_{3.9} < -16K$ and $R_{1.88} < 0.035$
No
Yes
Water Cloud
$T_{14} < 240K$
No
Yes
Ice Cloud
$R_{1.88} > 0.035$
No
Yes
Ice Cloud
Undetermined Phase


Snow/Ice Ecosystem
Clear Probability
Confident Clear
Probably Clear
Cloudy
Probably Cloudy
Cloud Free
$T_{10.7} - T_{3.9} < -9K$ and $R_{1.88} < 0.035$
No
Yes
Water Cloud
$T_{14} < 240K$
No
Yes
Ice Cloud
$R_{1.88} > 0.035$
No
Yes
Ice Cloud
Undetermined Phase


Coastal Ecosystem
Clear Probability
Confident Clear
Probably Clear
Cloudy
Probably Cloudy
Cloud Free
$T_{10.7} - T_{3.9} < -16K$ and $R_{1.88} < 0.035$
No
Yes
Water Cloud
$T_{14} < 240K$
No
Yes
Ice Cloud
$R_{1.88} > 0.035$
No
Yes
Ice Cloud
Undetermined Phase


Desert Ecosystem
Clear Probability
Confident Clear
Probably Clear
Cloudy
Probably Cloudy
Cloud Free
$T_{10.7} - T_{3.9} < -18K$ and $R_{1.88} < 0.035$
No
Yes
Water Cloud
$T_{14} < 240K$
No
Yes
Ice Cloud
$T_{10.7} - T_{11.7} > f(\theta, T_{10.7})$ and $R_{0.87} < 0.3$
No
Yes
Ice Cloud
$R_{1.88} > 0.035$
No
Yes
Ice Cloud
Undetermined Phase