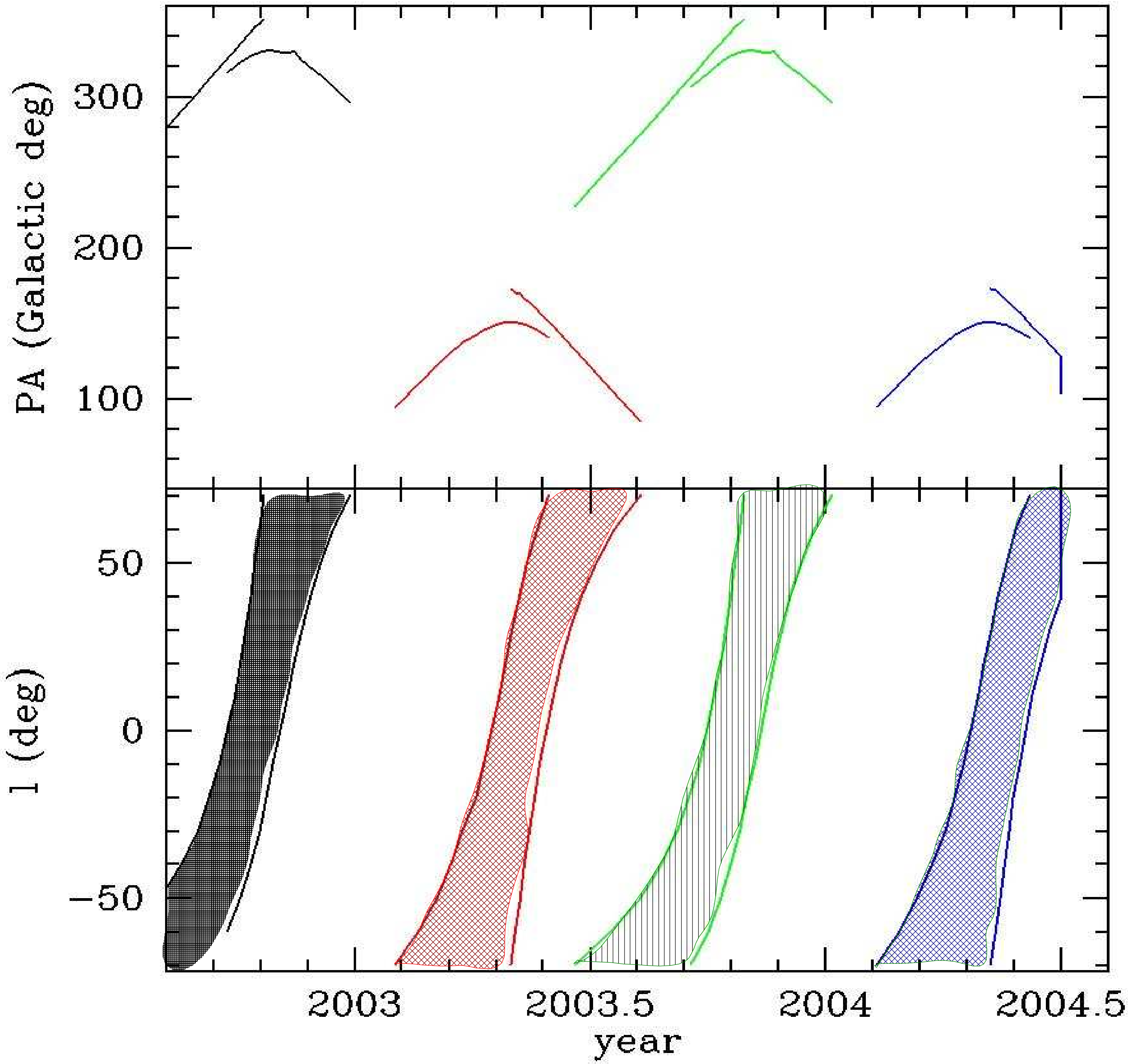
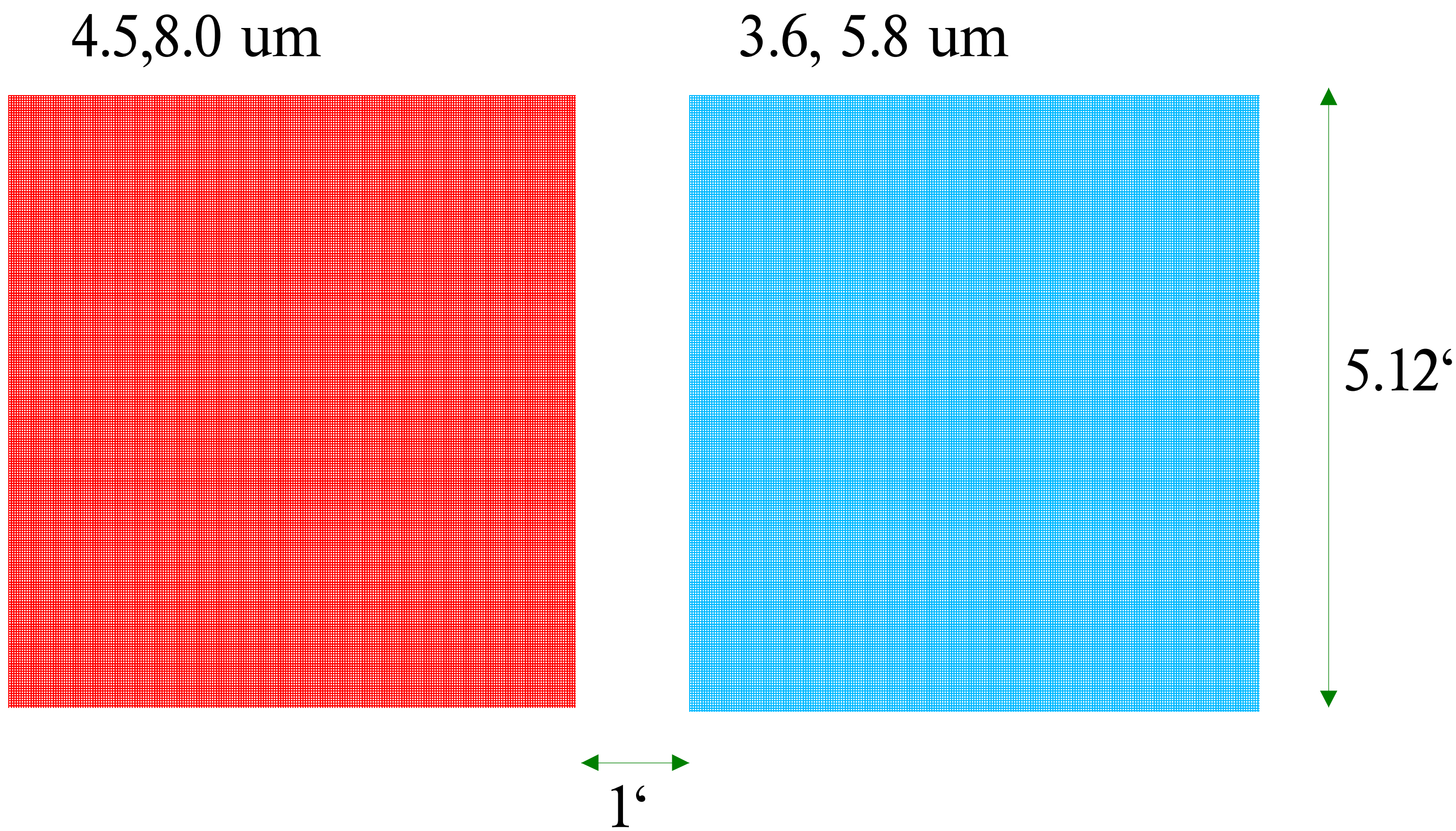
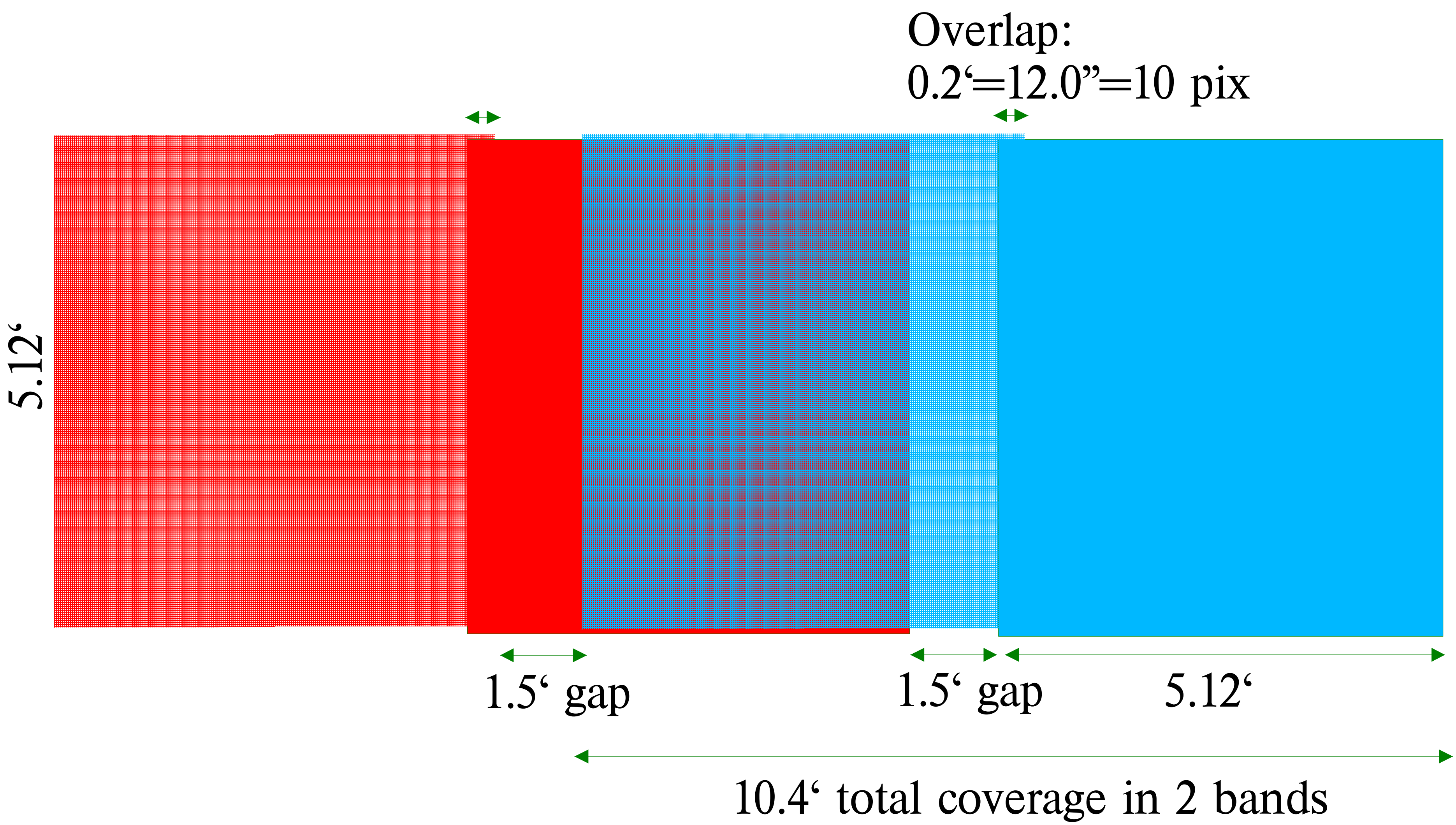
GLIMPSE observational windows

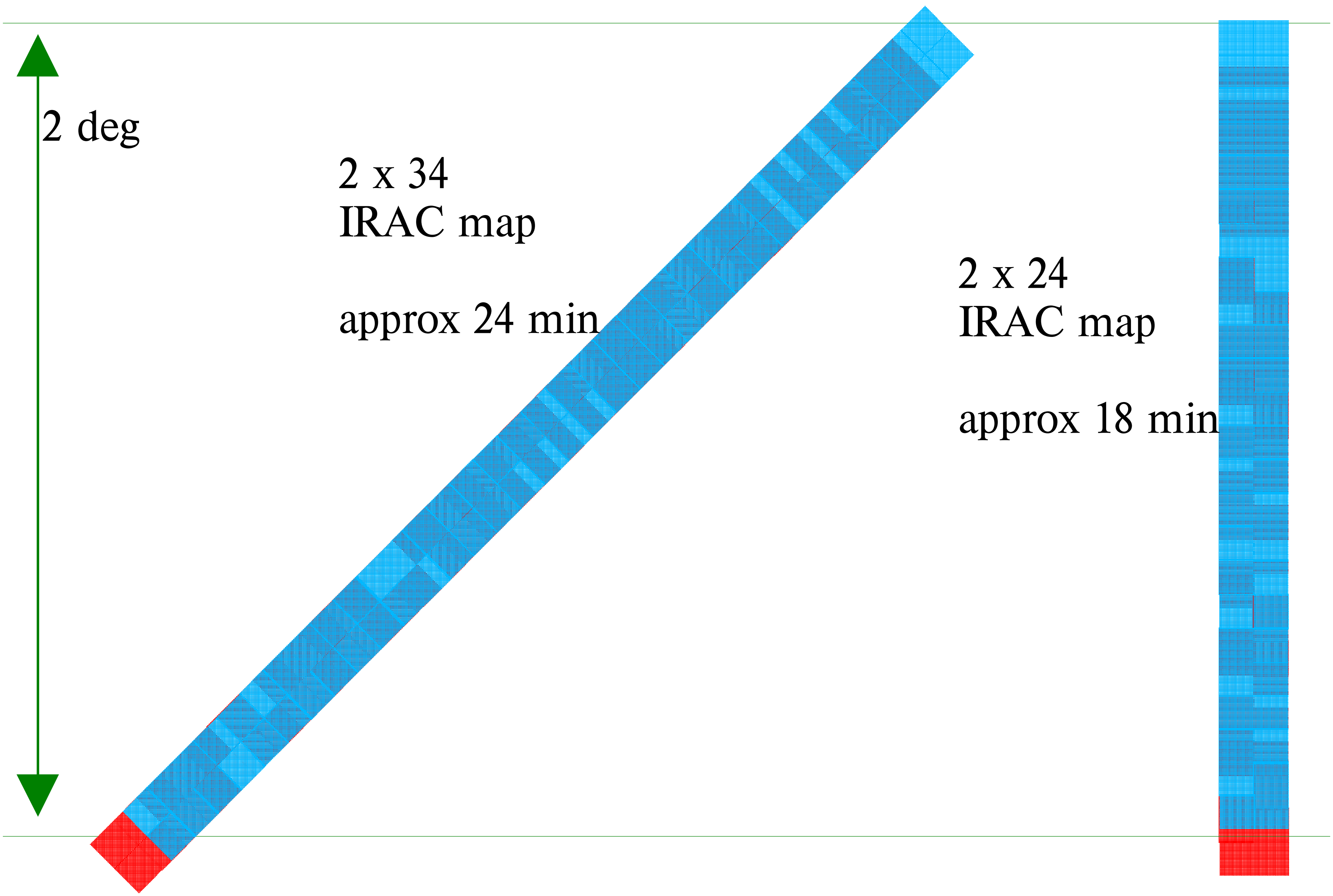


IRAC-- 256x256, 1.2”/pix

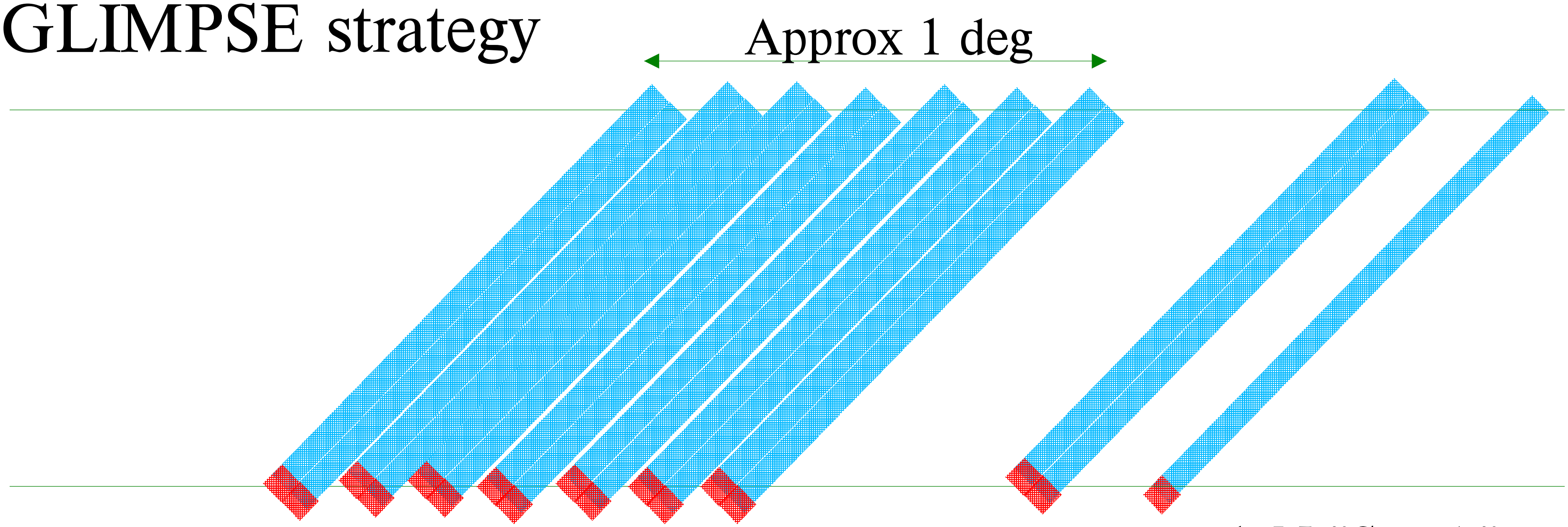


5.12‘x5.12‘=0.00728 sq deg.

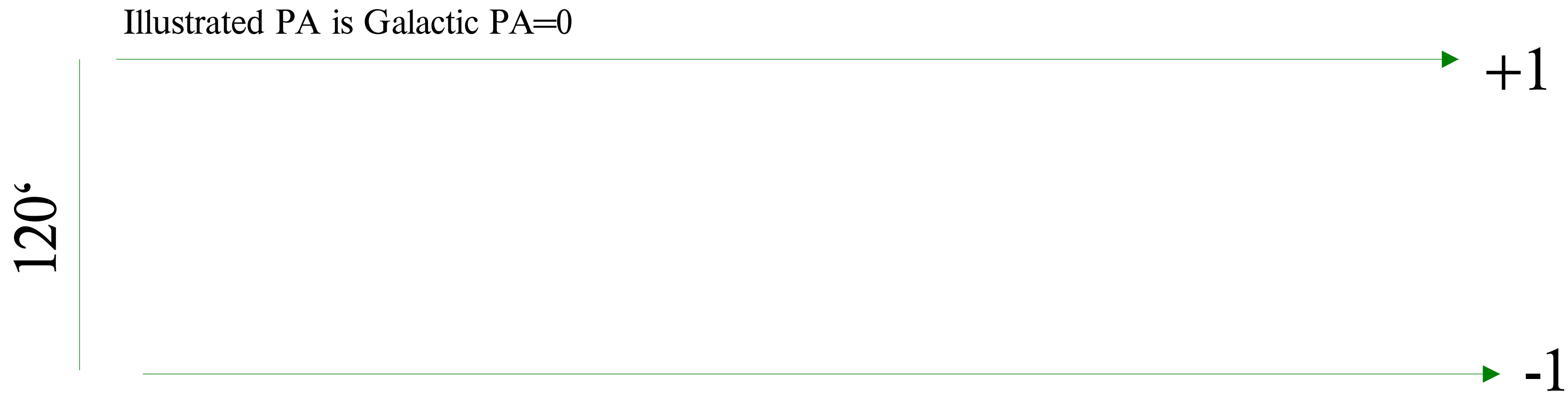

Overlap:
0.2‘=12.0”=10 pix
5.12‘
1.5‘ gap
1.5‘ gap
5.12‘
10.4‘ total coverage in 2 bands


2 deg
2 x 34
IRAC map
approx 24 min
2 x 24
IRAC map
approx 18 min

GLIMPSE strategy



Term	6x2xN ”Patch” (6 ”chained” AORs)	2xN ”Strip” = AOR	1xN ”Swath”
Exposures	12xN=288 - 408	2N = 48-68	(N=24 ... 34 = 24/sin(ω))
Time	105 - 148 min	17 - 24 min	
Data	150 - 215 MB	25 - 36 MB	
sq deg	2.0 - 2.8	0.33 - 0.47	



Survey: b<|1|, 70>l>10 & 350>l>290

area: 2 x 120 deg = 240 sq deg

patches: 240 sq deg /(2.0 - 2.8) sq deg/patch = 86 - 120 patches

images: 35,000 exposures x 4 bands = 140,000 images

time: (1.7 - 2.4) hr/patch x (120 - 86) patches = 205 hr (single cover.)

= 410 hr double cover

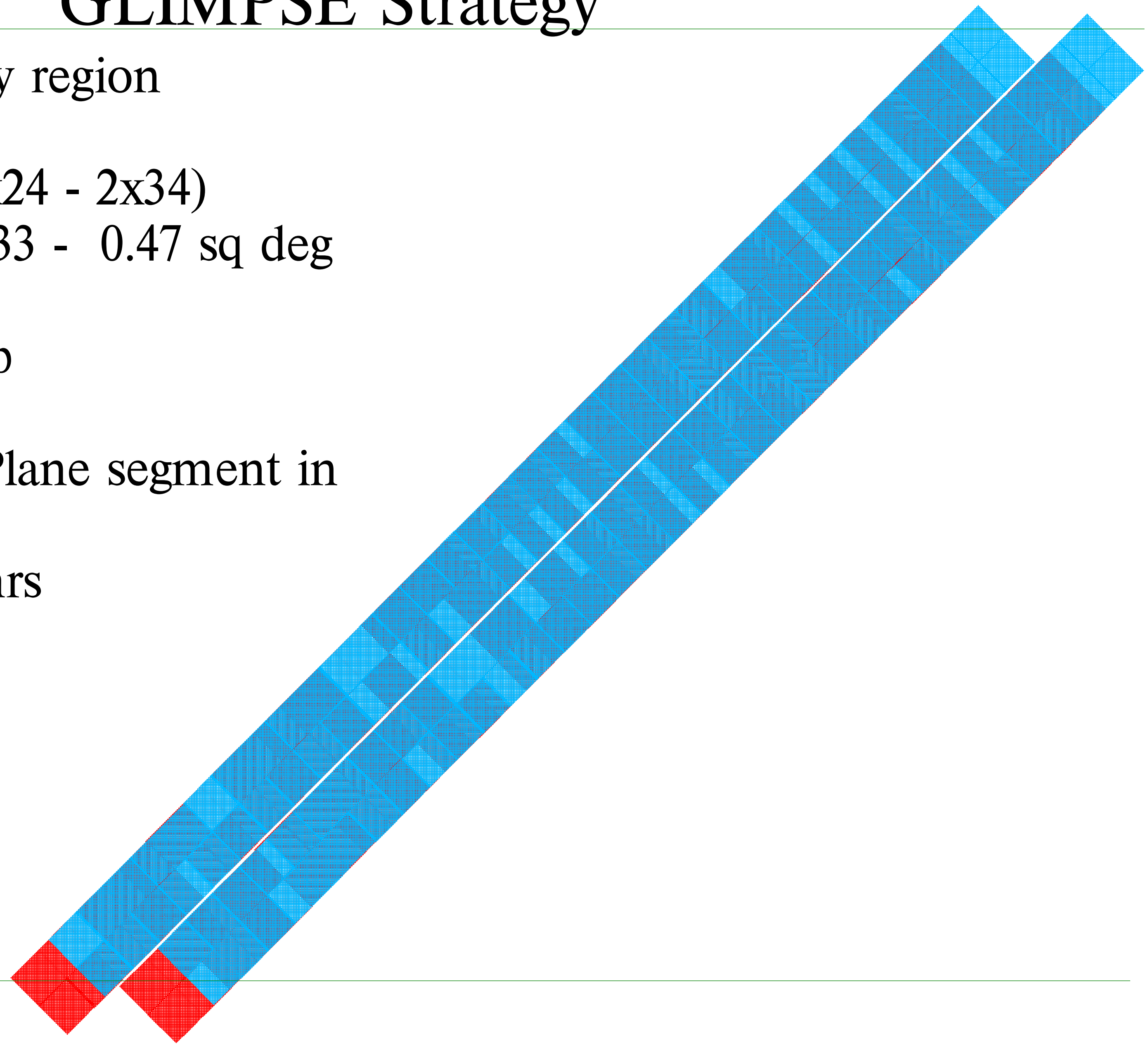
GLIMPSE Strategy

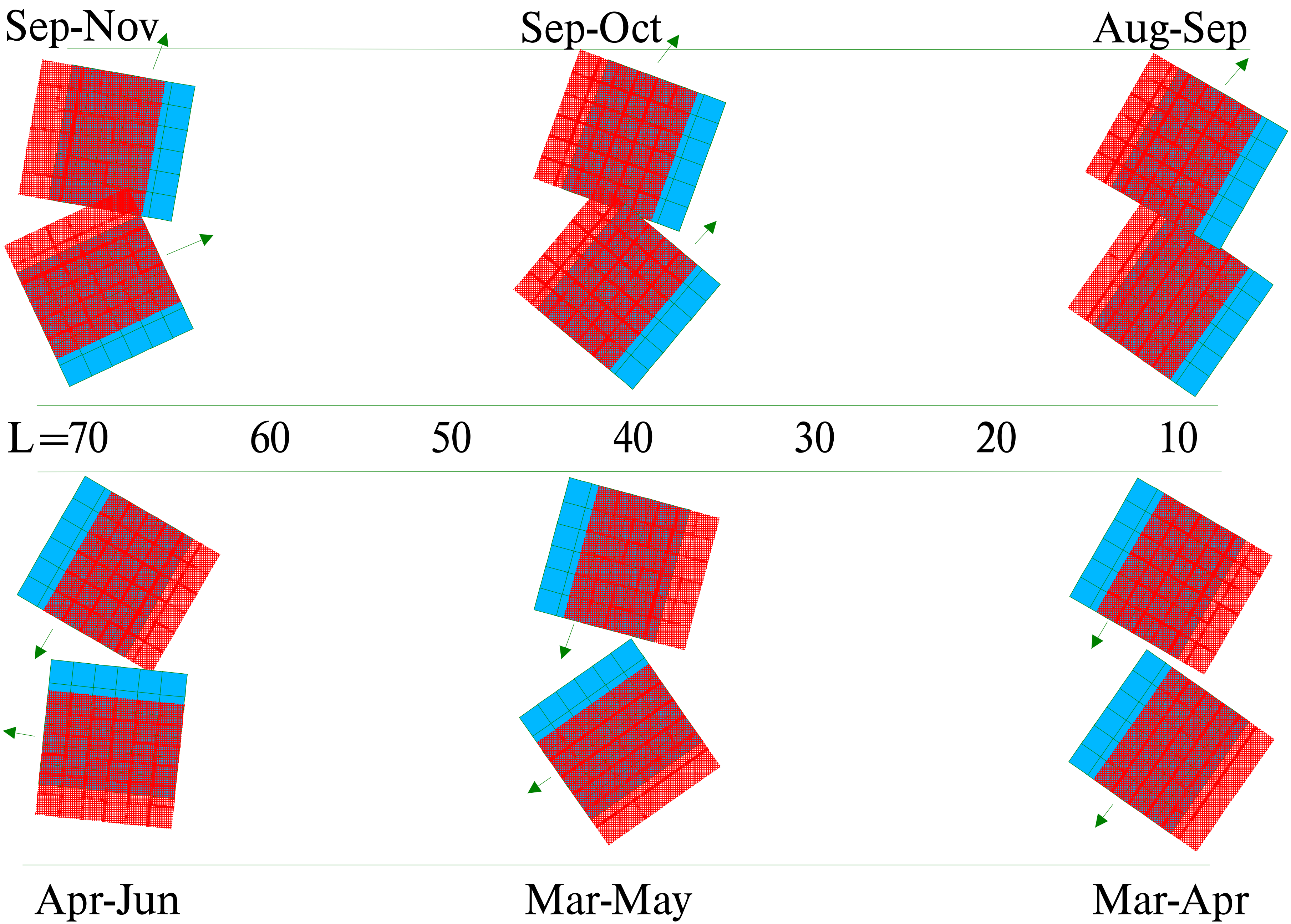
240 sq deg survey region

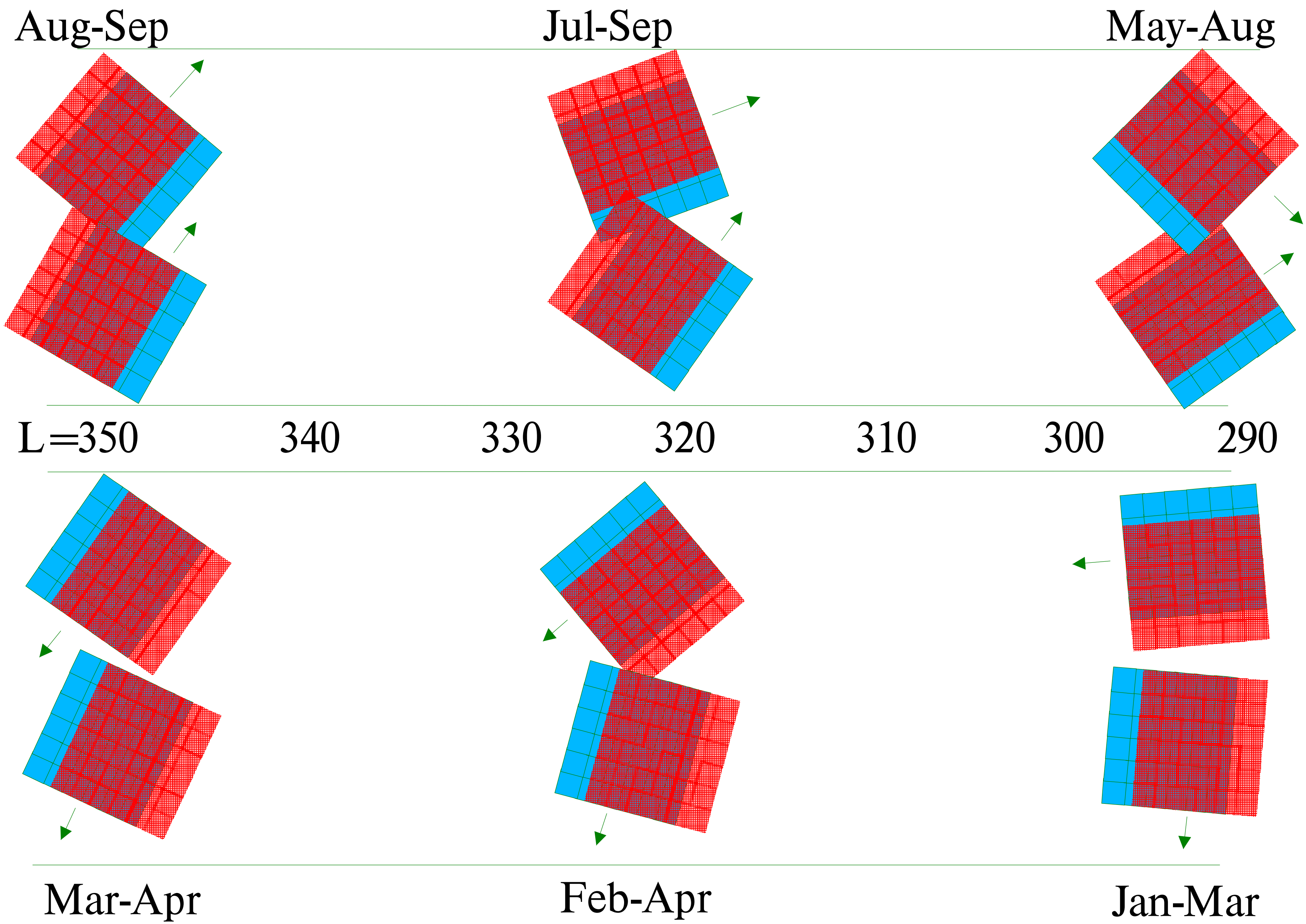
500-725 strips (2x24 - 2x34)
0.33 - 0.47 sq deg

0.3 - 0.4 hrs /strip

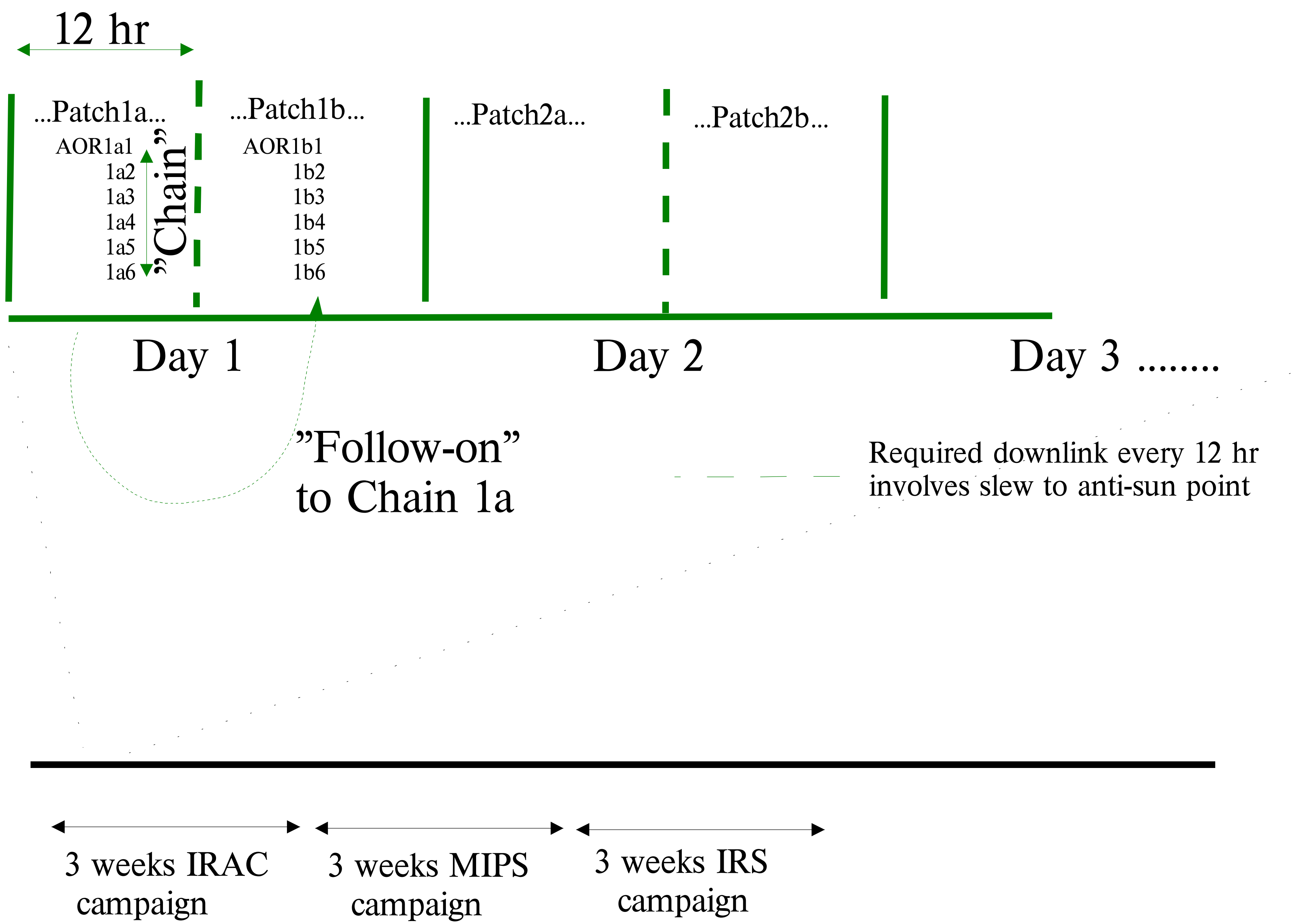
Cover a 10 deg Plane segment in
43 - 60 strips
= approx 18 hrs




Sep-Nov
Sep-Oct
Aug-Sep
L =70
60
50
40
30
20
10
Apr-Jun
Mar-May
Mar-Apr



Aug-Sep
Jul-Sep
May-Aug
L=350
340
330
320
310
300
290
Mar-Apr
Feb-Apr
Jan-Mar


12 hr
...Patch1a...
AOR1a1
1a2
1a3
1a4
1a5
1a6
"Chain"
...Patch1b...
AOR1b1
1b2
1b3
1b4
1b5
1b6
...Patch2a...
...Patch2b...
Day 1
Day 2
Day 3 ....
"Follow-on" to Chain 1a
Required downlink every 12 hr involves slew to anti-sun point
3 weeks IRAC campaign
3 weeks MIPS campaign
3 weeks IRS campaign