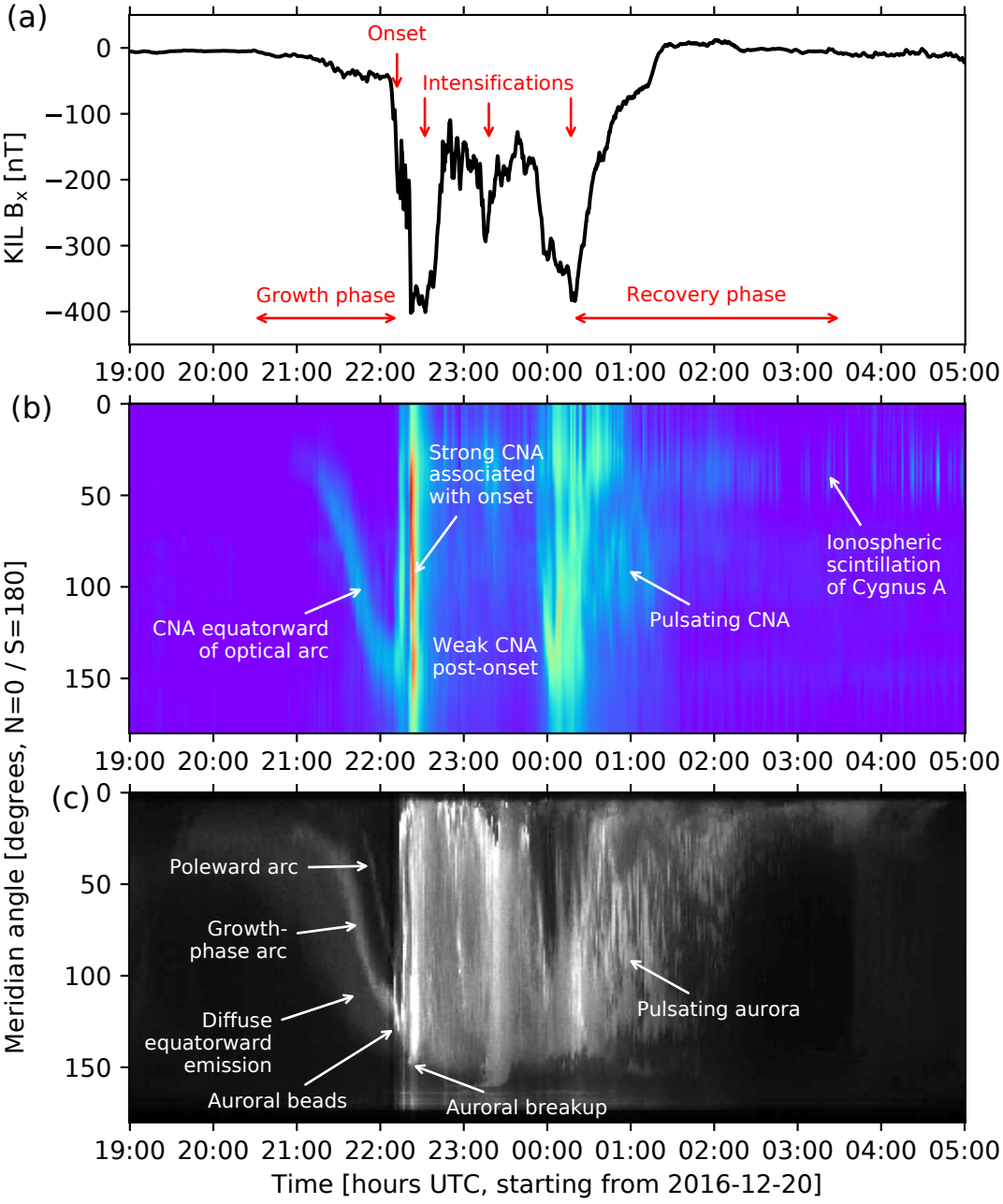
(a)
Onset
Intensifications
Growth phase
Recovery phase
KIL B_x [nT]
0
−100
−200
−300
−400
19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00
(b)
Strong CNA associated with onset
Ionospheric scintillation of Cygnus A
Pulsating CNA
CNA equatorward of optical arc
Weak CNA post-onset
Meridian angle [degrees, N=0 / S=180]
0
50
100
150
19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00
(c)
Poleward arc
Growth-phase arc
Diffuse equatorward emission
Auroral beads
Auroral breakup
Pulsating aurora
0
50
100
150
19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00
Time [hours UTC, starting from 2016-12-20]