

KIC 006890618

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006890618-01	OBS	6787.01	1.574000	133.085895	324.7	4.969	129.6	54.0	0.96	5951	2.35	1626.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006890618-01	OBS	FP	0.00	0	0	1	0	SEASONAL_DEPTH_DV—SEASONAL_DEPTH_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006890618-01

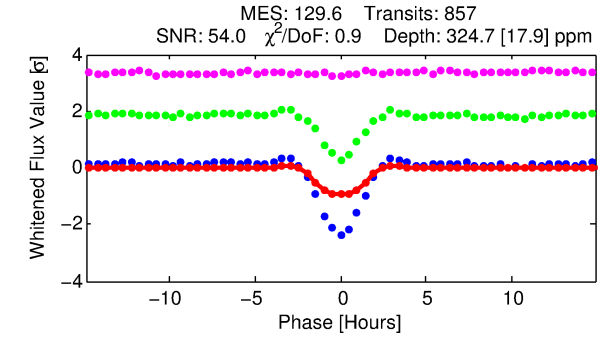
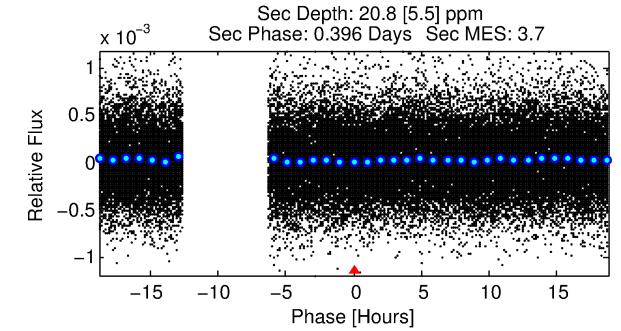
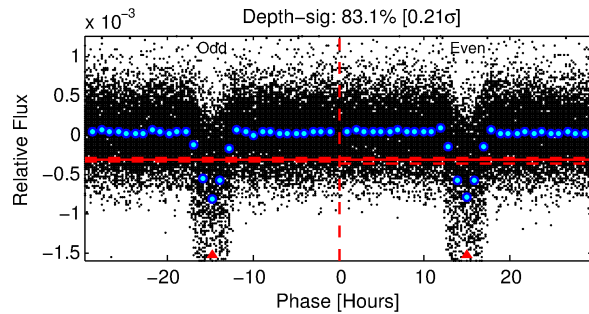
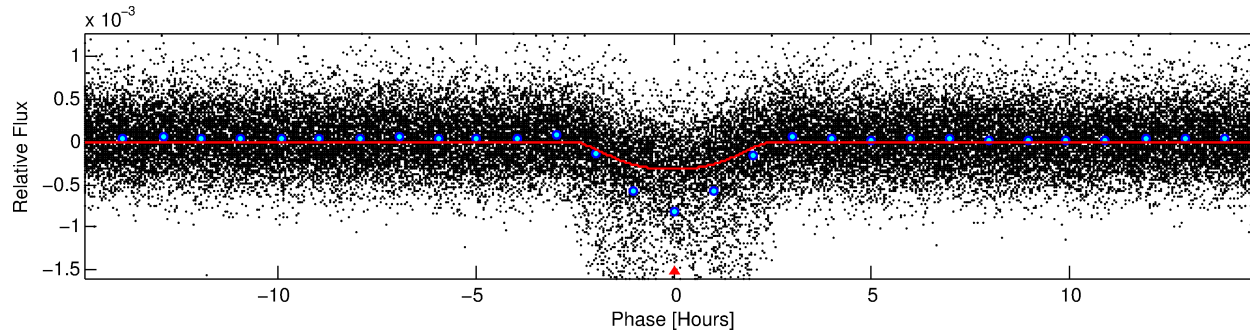
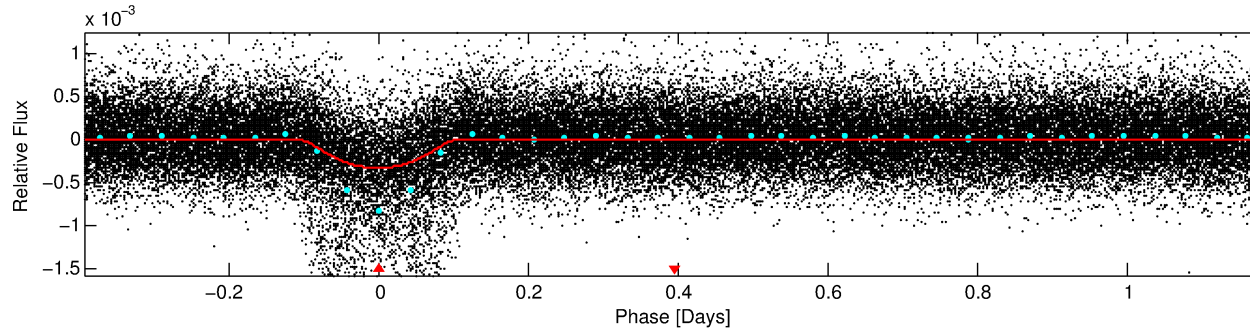
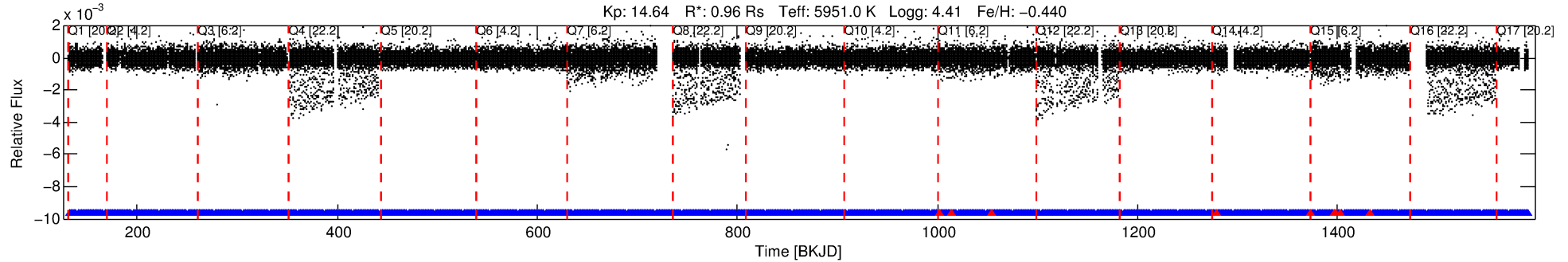
No Significant Match Found

DV One-Page Summary

KIC: 6890618 Candidate: 1 of 1 Period: 1.574 d

KOI: K06787.01 Corr: 0.924

Kp: 14.64 R*: 0.96 Rs Teff: 5951.0 K Logg: 4.41 Fe/H: -0.440



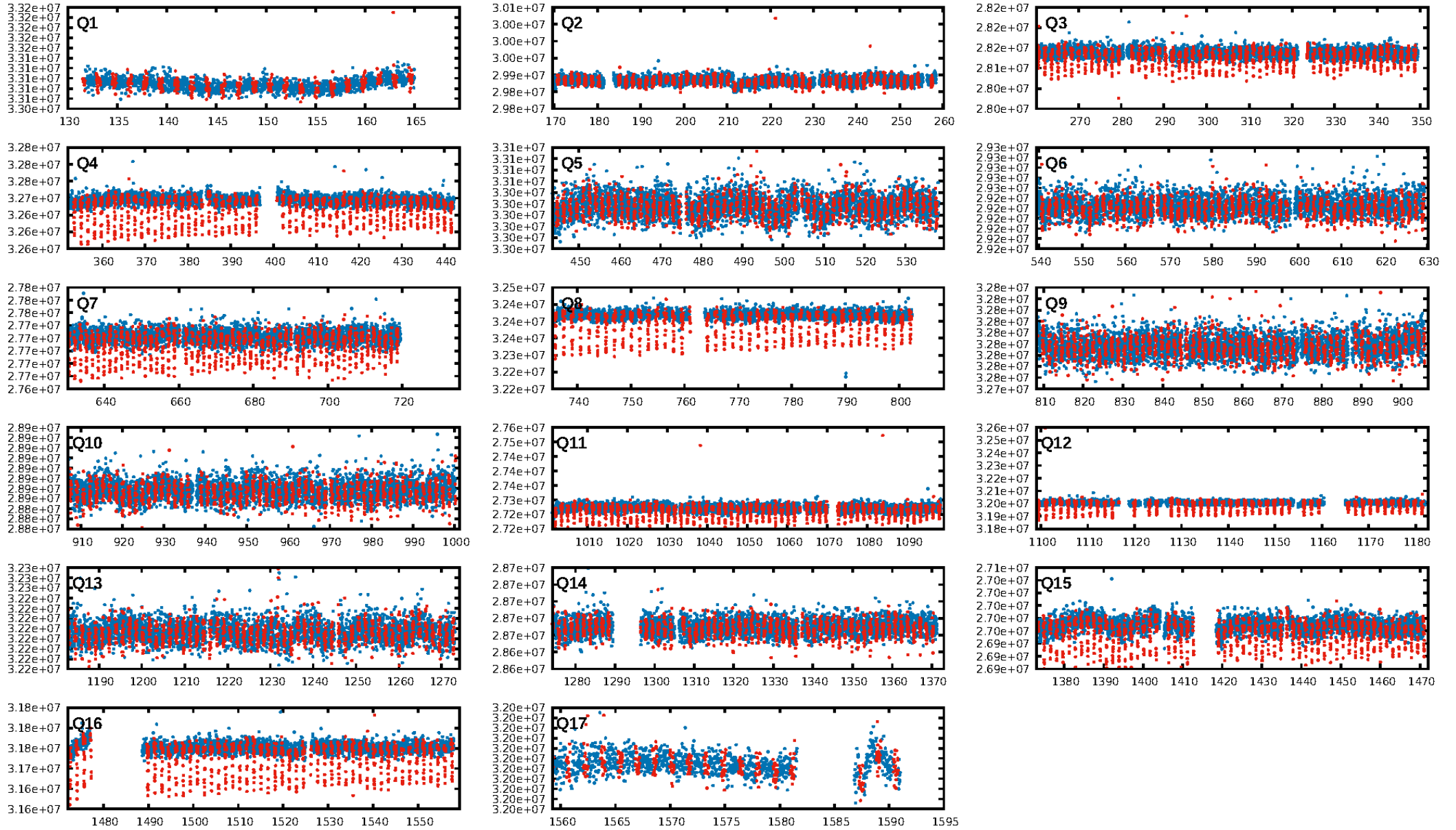
DV Fit Results:

Period = 1.57400 [0.00000] d
Epoch = 133.0859 [0.0015] BKJD
Rp/R* = 0.0224 [0.0011]
a/R* = 1.22 [0.02]
b = 0.98 [0.00]
Seff = 1626.91 [564.05]
Teq = 1619 [140] K
Rp = 2.35 [0.62] Re
a = 0.0253 [0.0056] AU
Ag = 1.32 [0.57] [0.57σ]
Teffp = 2685 [205] K [4.29σ]

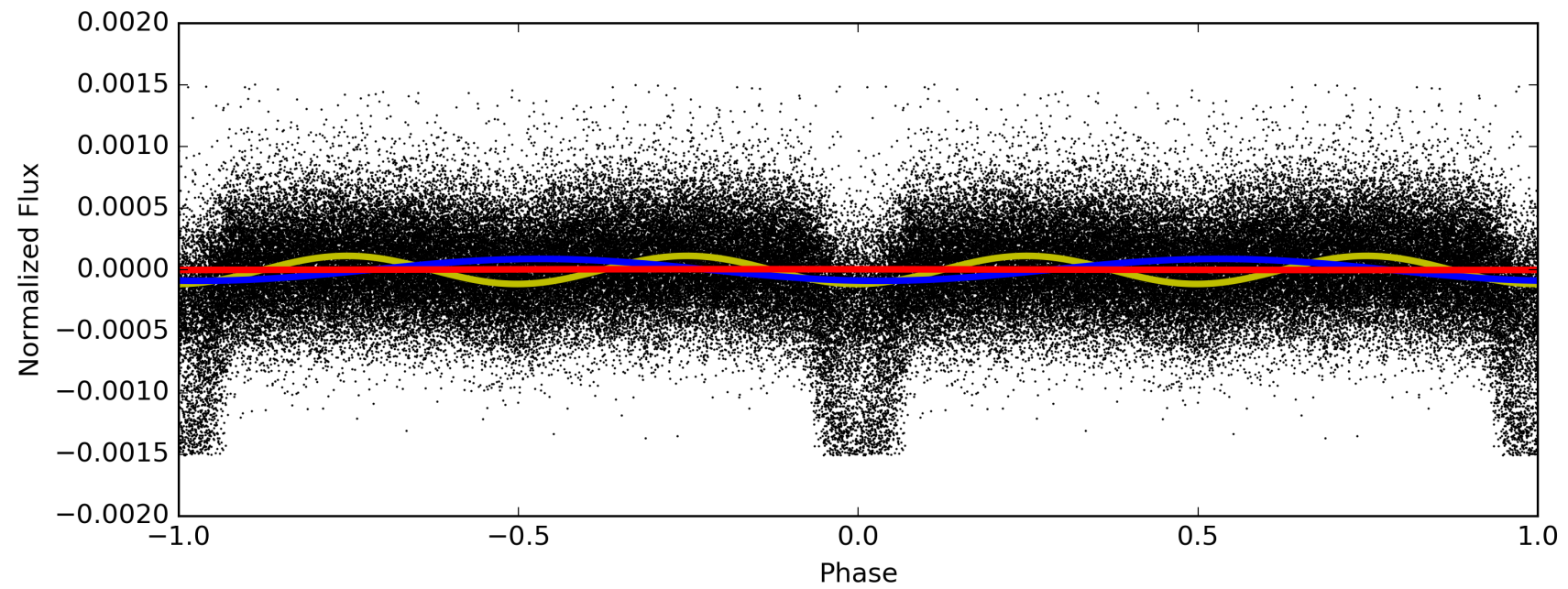
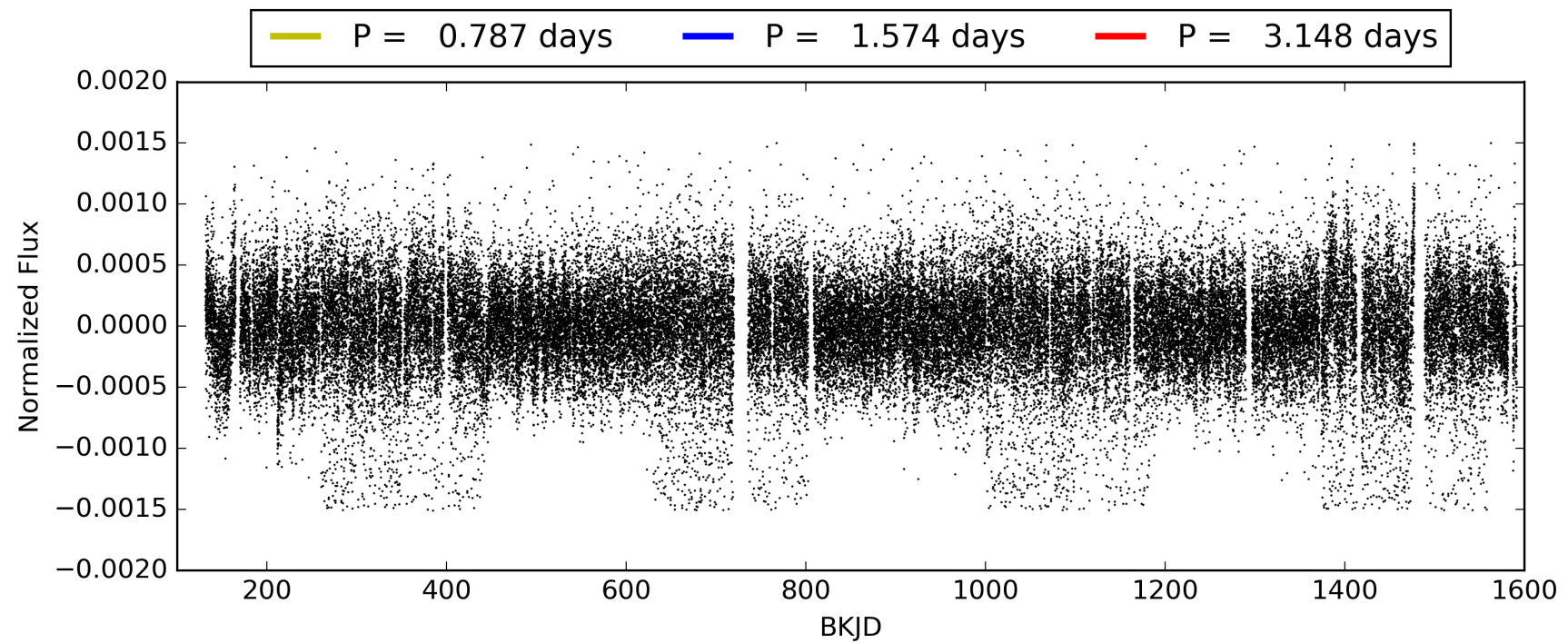
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [809/818]
GhostDiagnostic-chr: -0.08424
Centroid-sig: N/A
Centroid-so: 35.697 arcsec [148.85σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006890618-01, PDC Light Curves

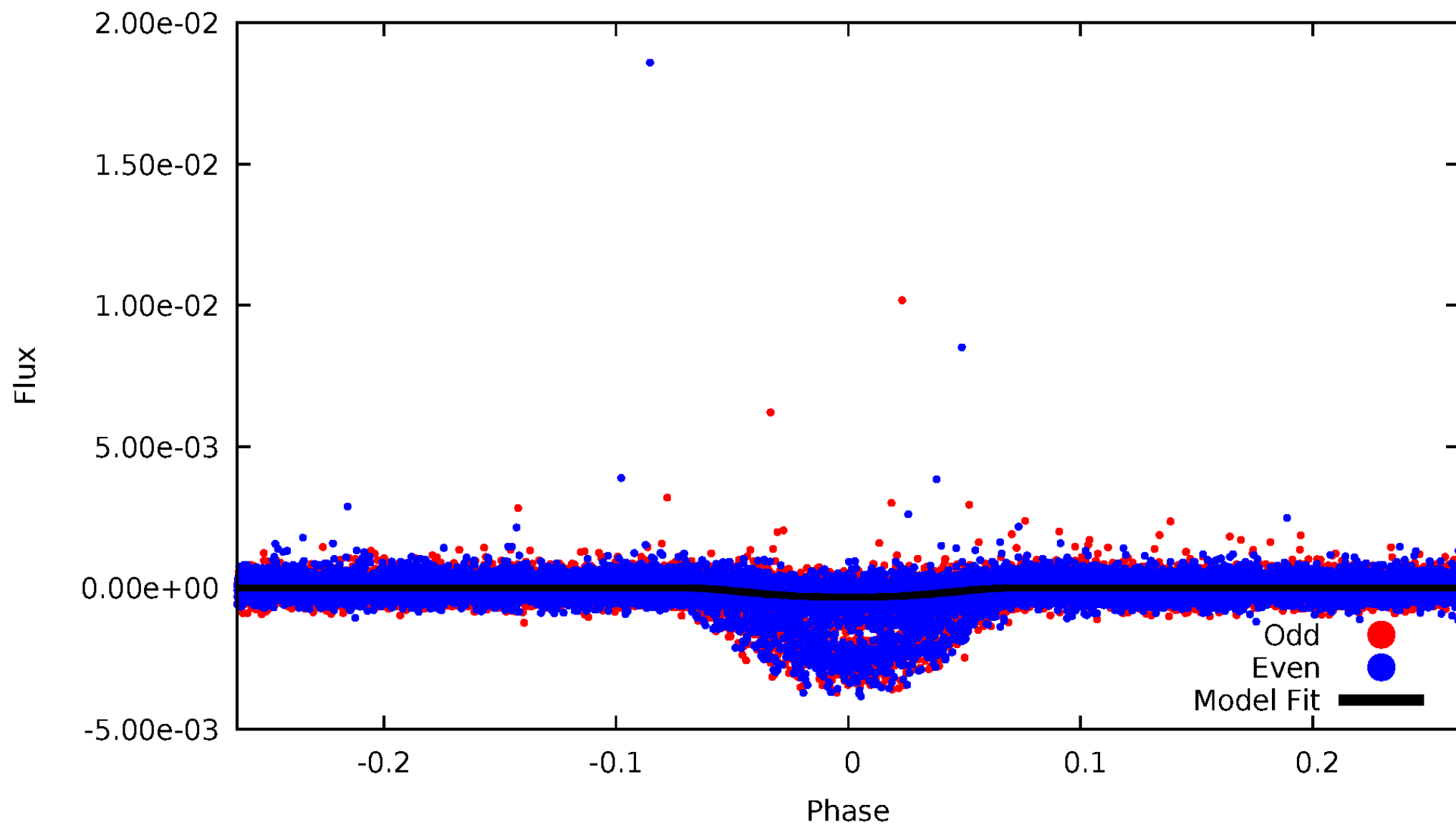


TCE 006890618-01



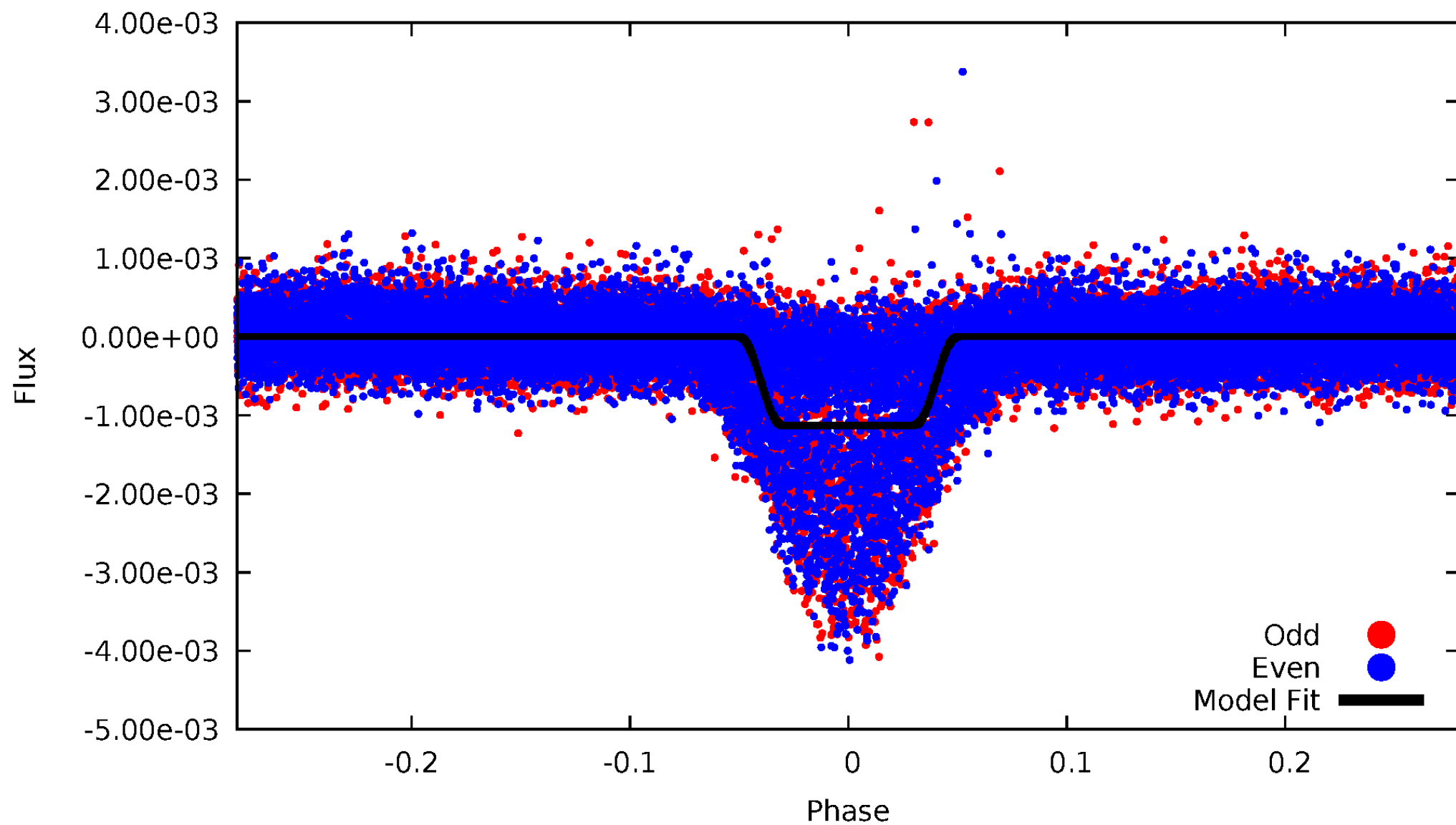
DV Odd/Even

TCE 006890618-01



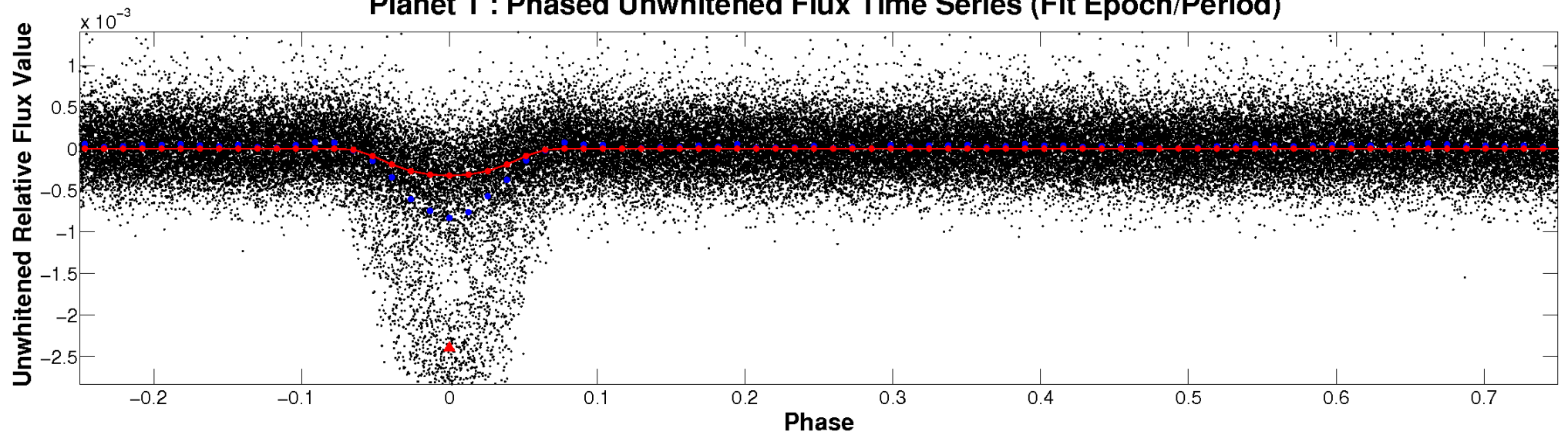
ALT Odd/Even

TCE 006890618-01

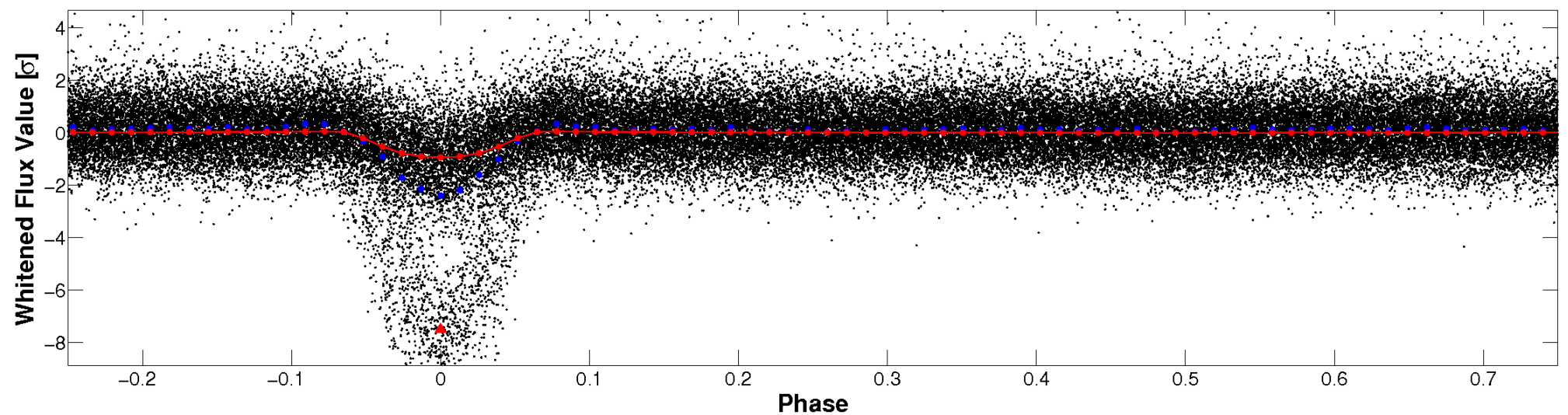


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

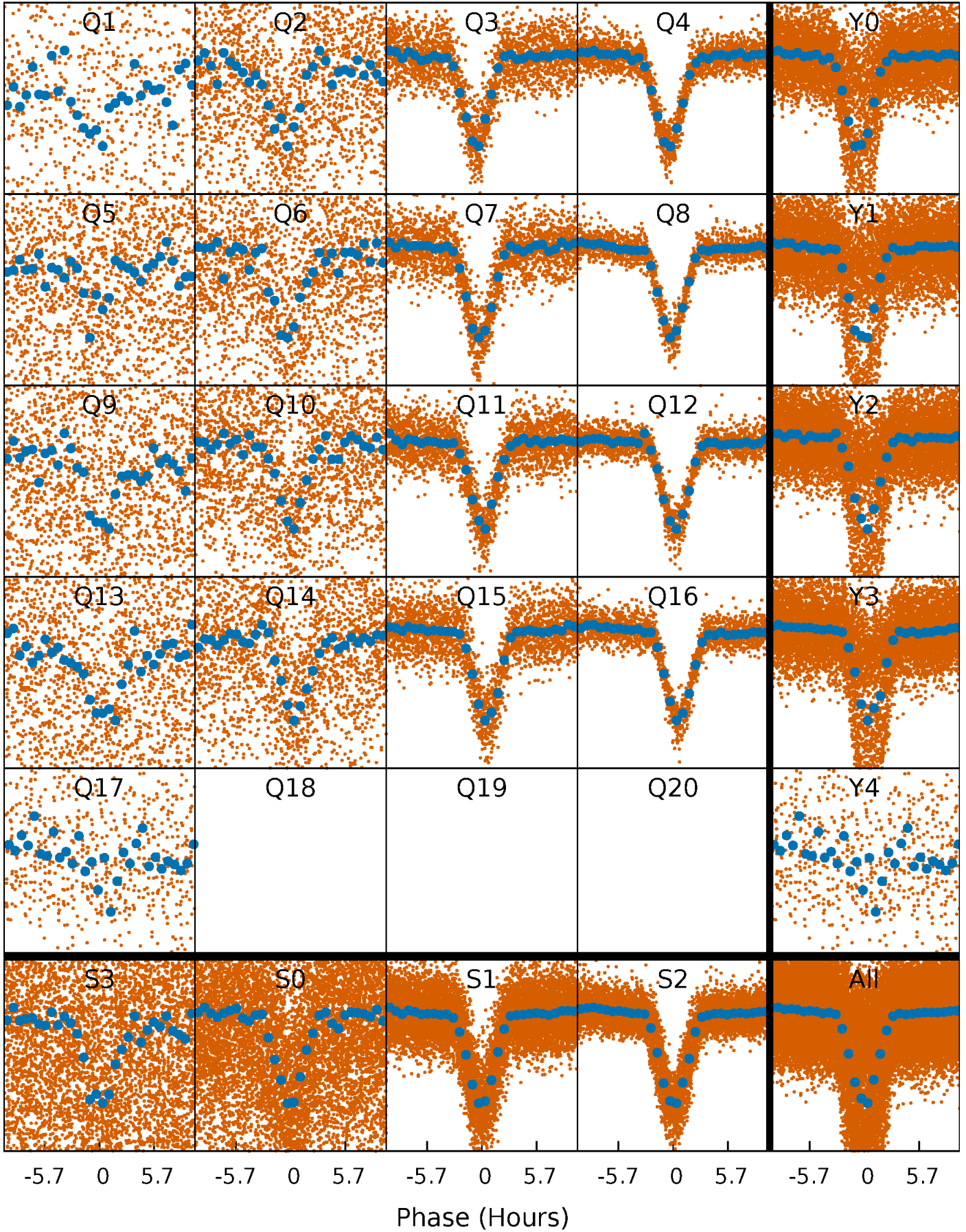


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



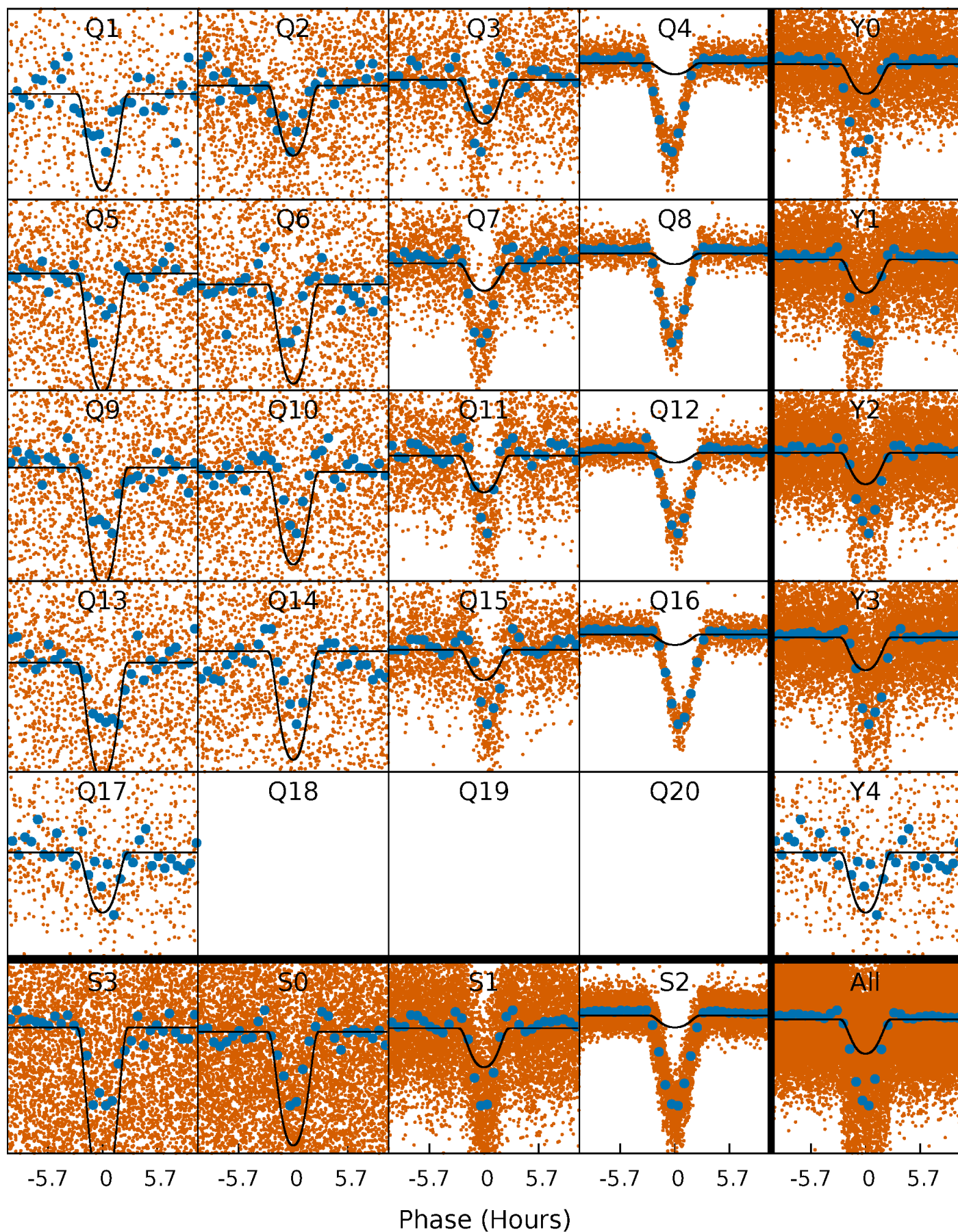
PDC Quarter-Phased Transit Curves

TCE 006890618-01 P= 1.574000 Days $T_0=133.085895$ (BKJD)



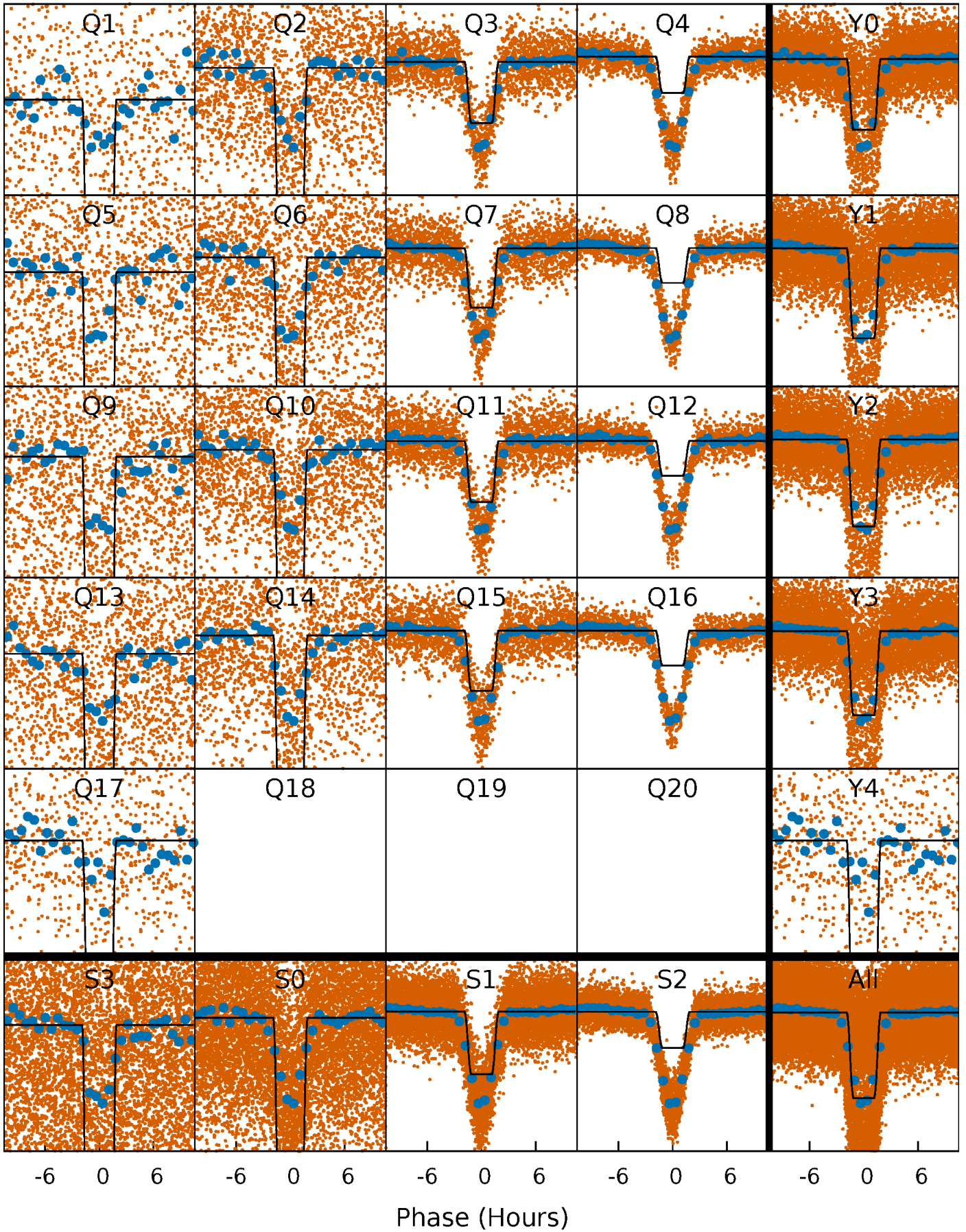
DV Quarter-Phased Transit Curves

TCE 006890618-01 P= 1.574000 Days $T_0=133.085895$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

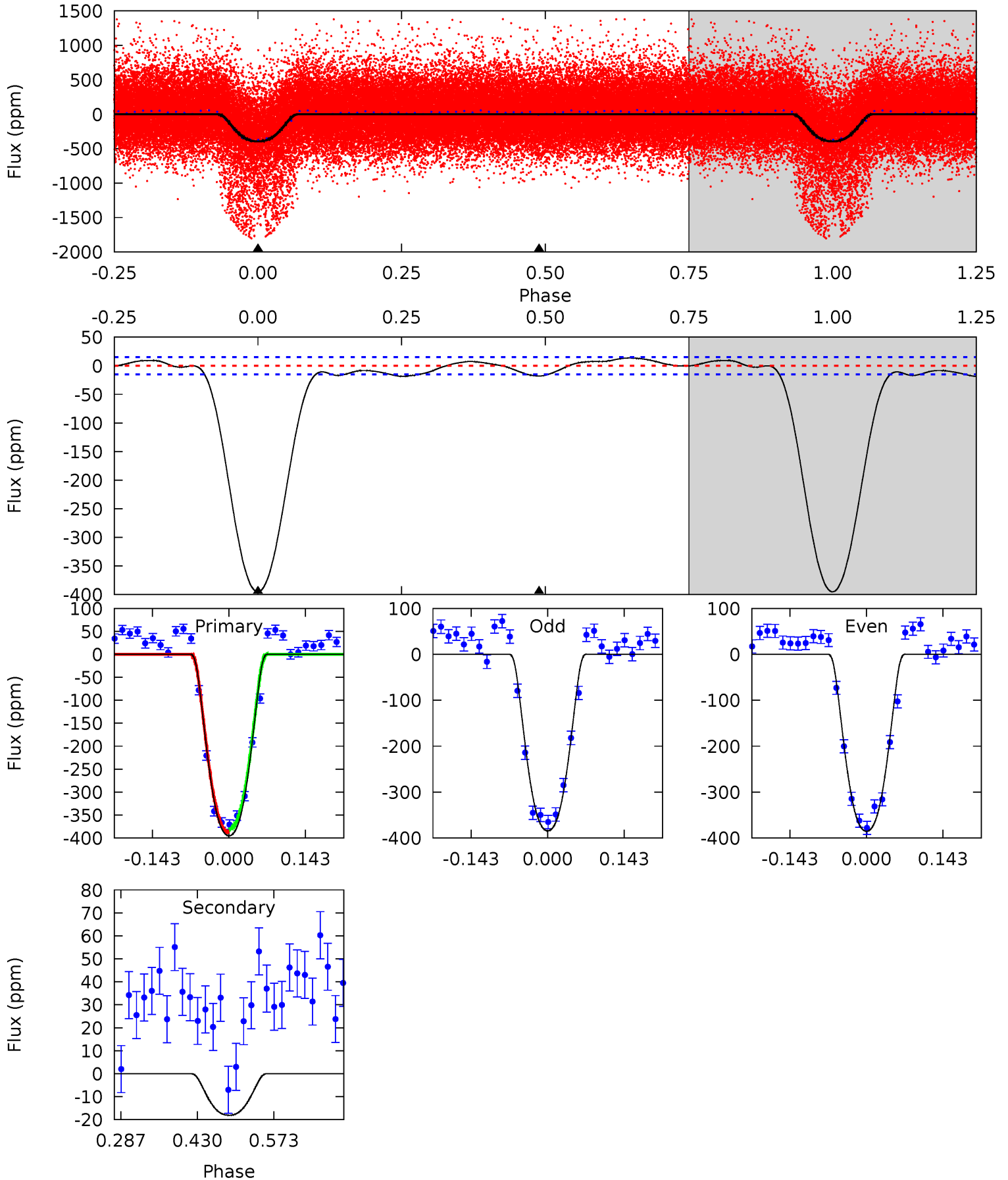
TCE 006890618-01 P= 1.574060 Days $T_0=133.057029$ (BKJD)



DV Model-Shift Uniqueness Test

006890618-01, P = 1.574000 Days, E = 131.511895 Days

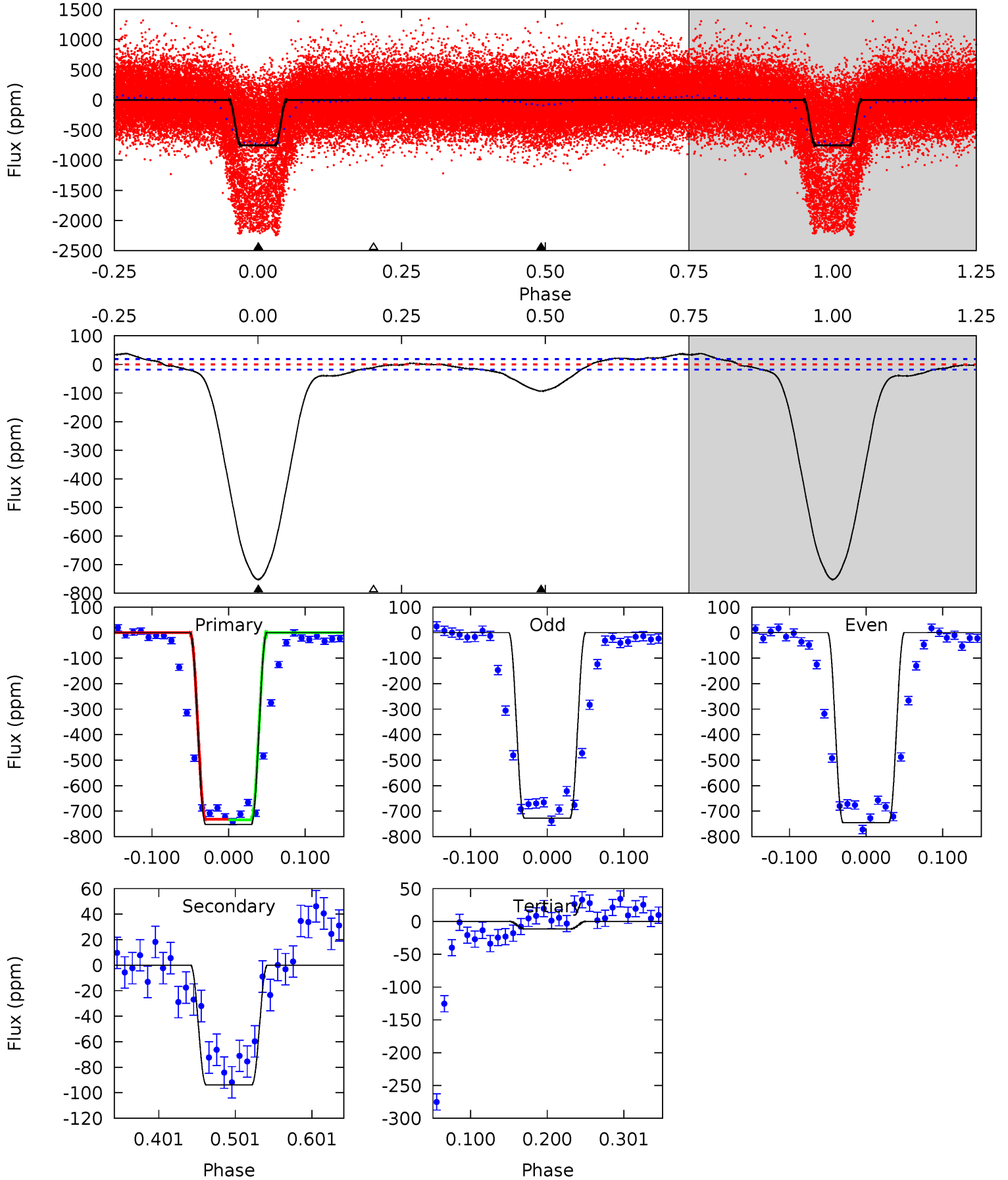
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
116.4	5.34	0	0	4.49	1.46	2.95	116.4	116.4	5.34	5.34	0.14	2.43	0.03	0



Alt Model-Shift Uniqueness Test

006890618-01, P = 1.574060 Days, E = 131.482969 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
185.2	23.1	2.81	0	4.56	1.64	5.35	182.4	185.2	20.3	23.1	2.22	1.90	0.05	0.25



Stellar Parameters For KIC 006890618

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5951^{+160}_{-178}	$4.411^{+0.120}_{-0.180}$	$-0.440^{+0.300}_{-0.300}$	$0.962^{+0.248}_{-0.144}$	$0.869^{+0.108}_{-0.081}$	$1.375^{+0.770}_{-0.671}$
	+3%/-3%	+3%/-4%	+68%/-68%	+26%/-15%	+12%/-9%	+56%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006890618-01 / KOI 6787.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 3	$2.37^{+0.35}_{-0.25}$	2274^{+145}_{-124}	3041^{+149}_{-147}	$1.105^{+0.378}_{-0.292}$
Alt.	-94 ± 4	$3.55^{+0.55}_{-0.35}$	2272^{+164}_{-130}	3554^{+85}_{-84}	$2.598^{+0.611}_{-0.608}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

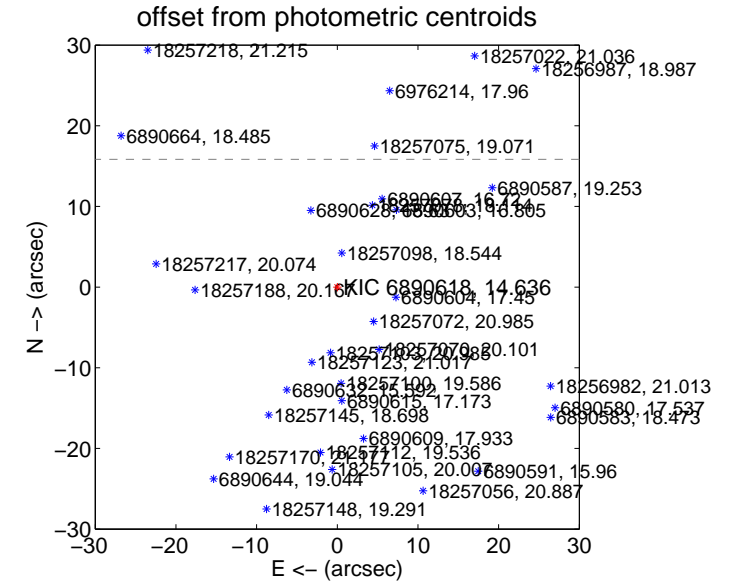
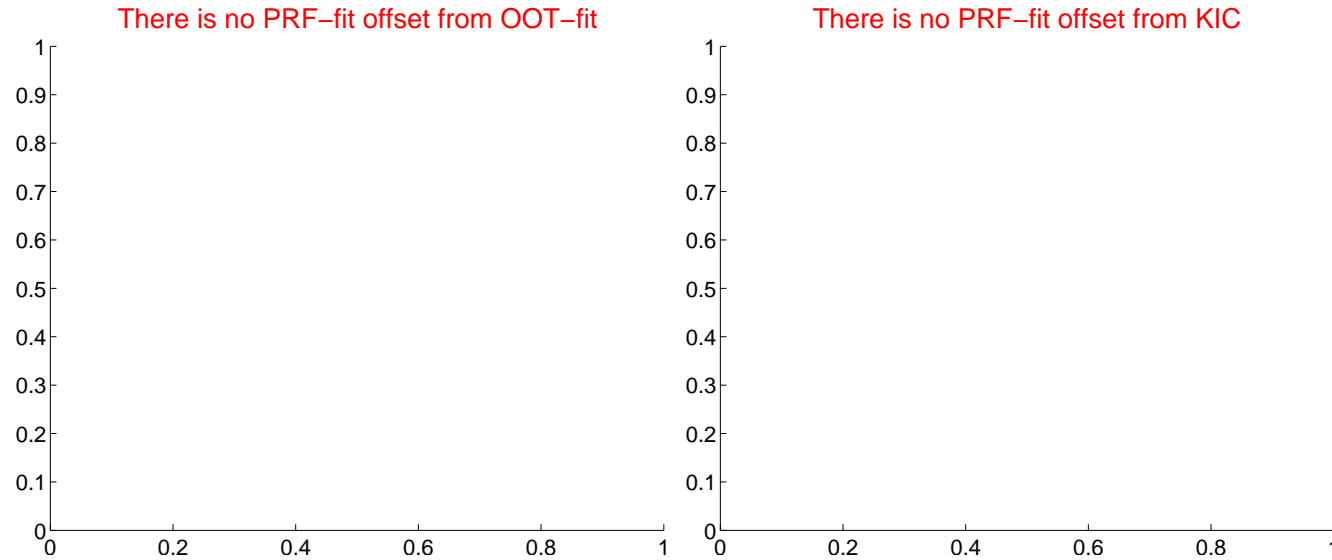
DV Centroid Data

Supplemental centroid analysis for 006890618-01. Kepler magnitude: 14.64. Transit SNR 54.02

There are 0 quarters with good PRF difference image offsets

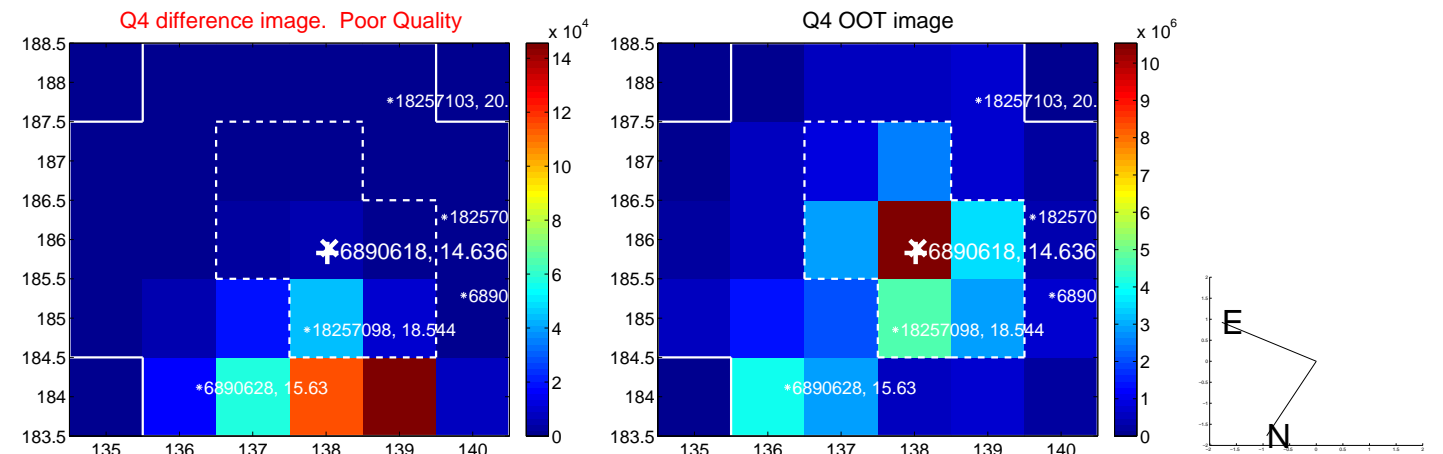
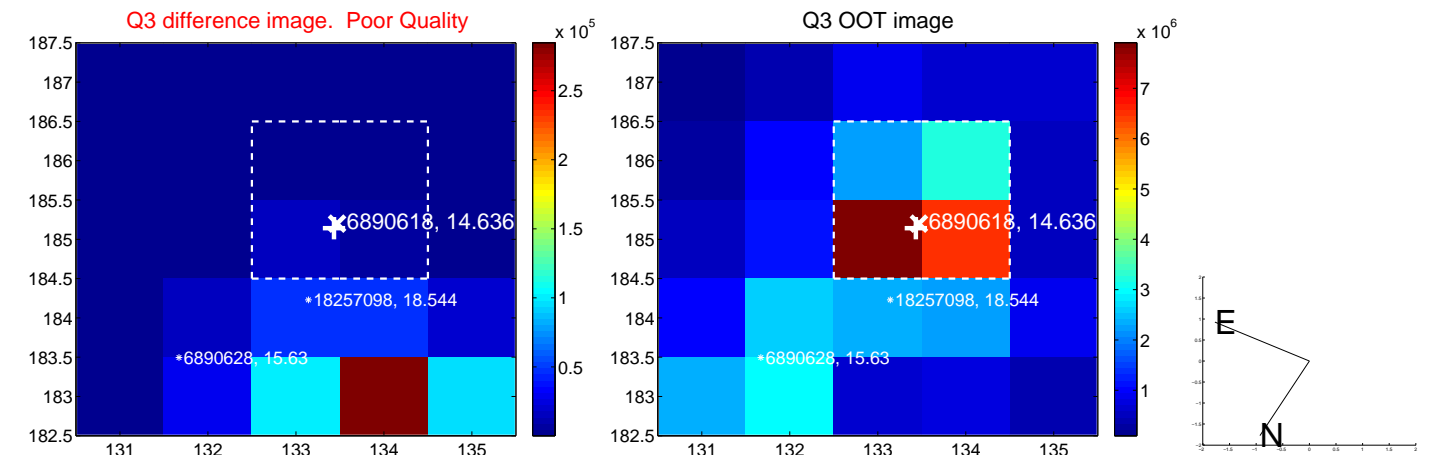
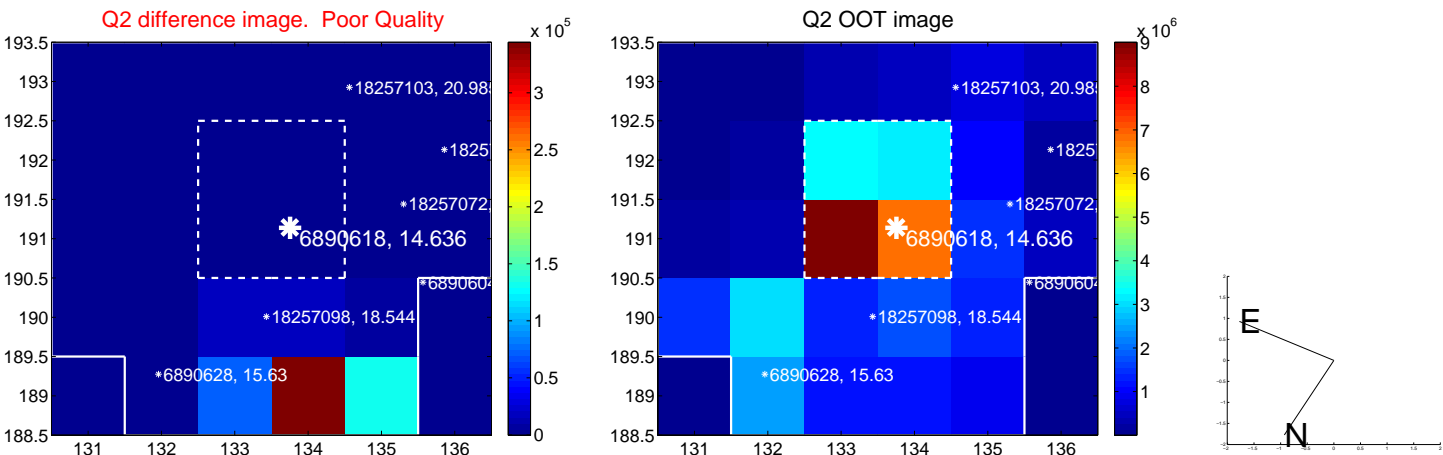
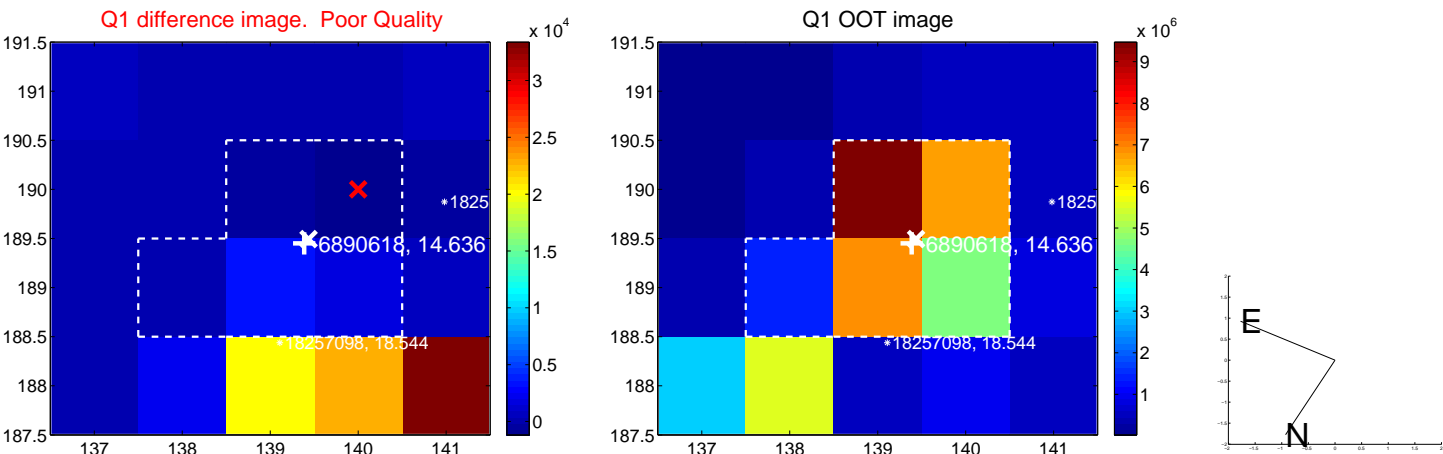
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	35.70 ± 0.24	148.85	-31.99 ± 0.23	15.83 ± 0.27

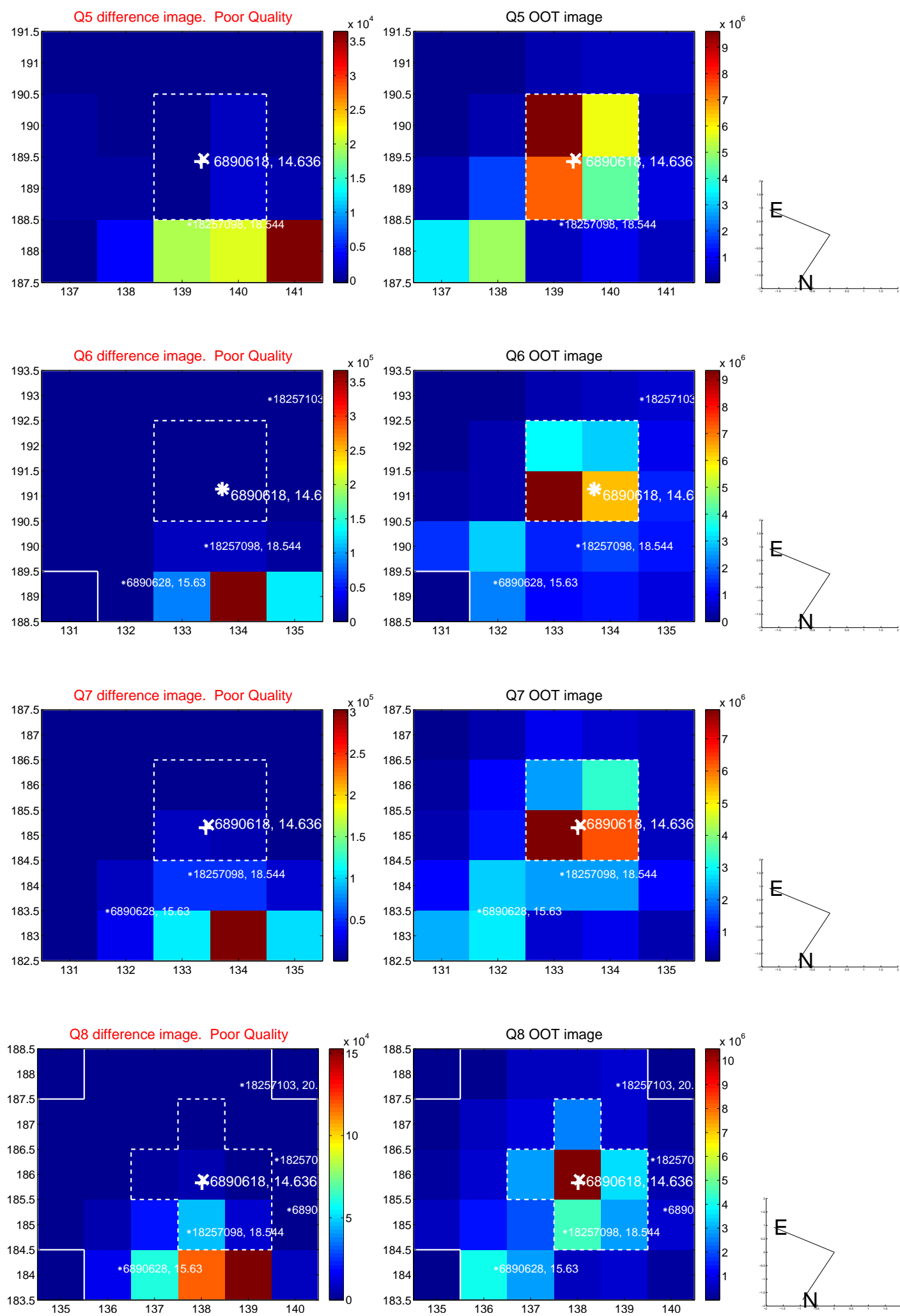


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

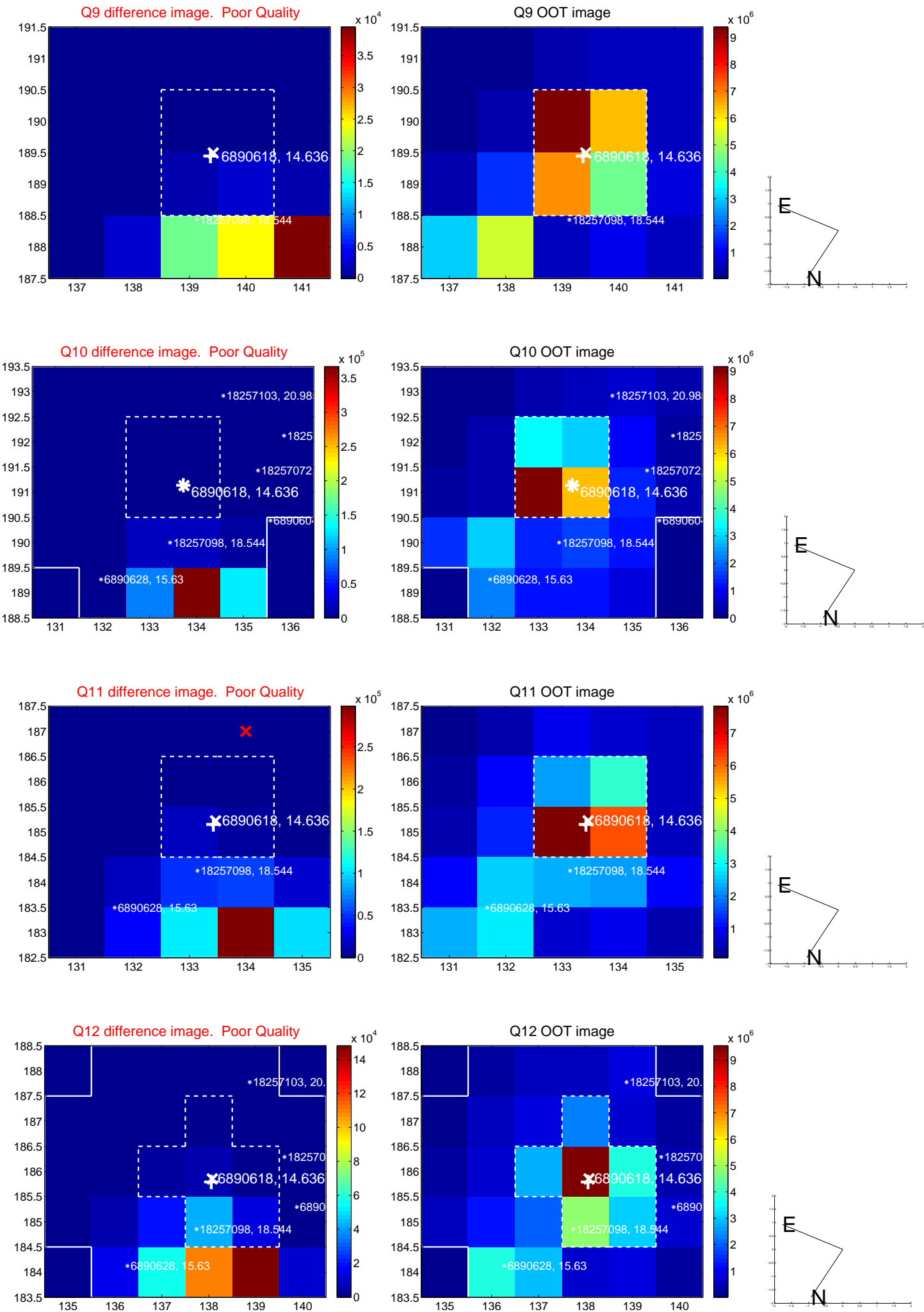
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



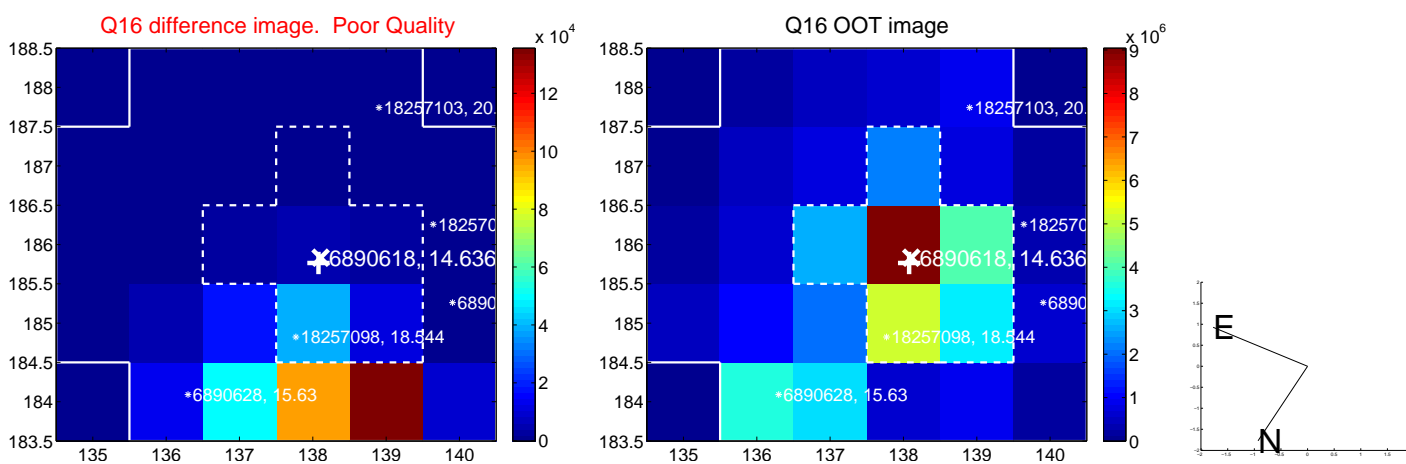
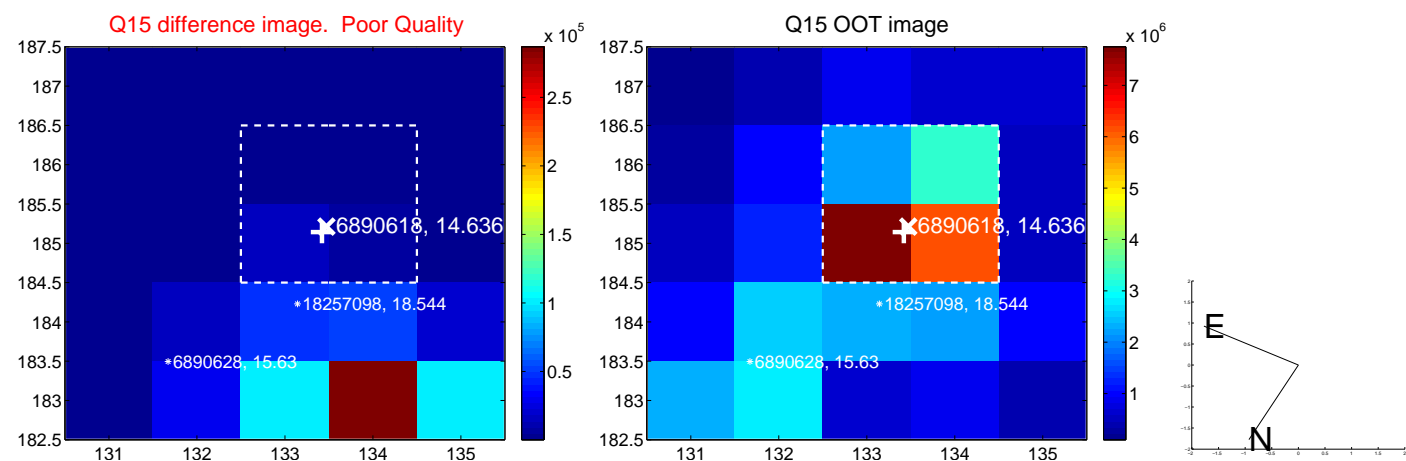
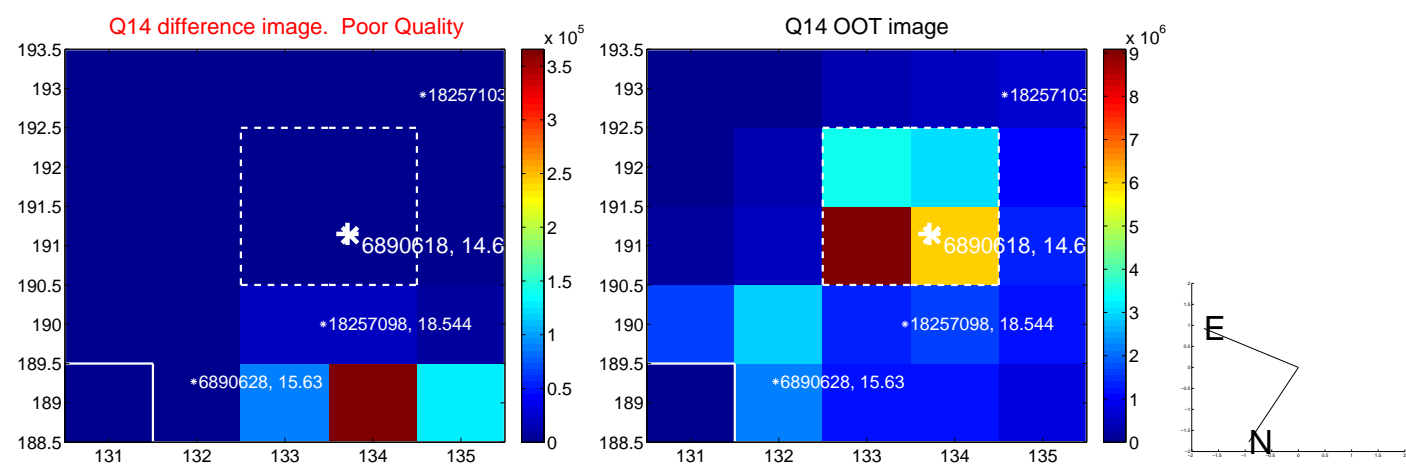
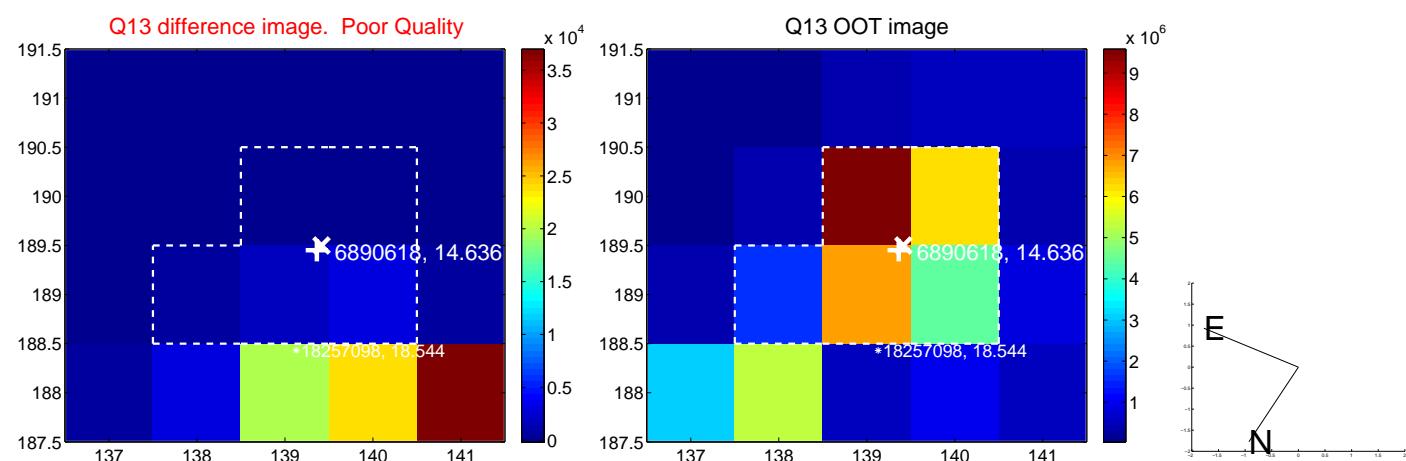
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



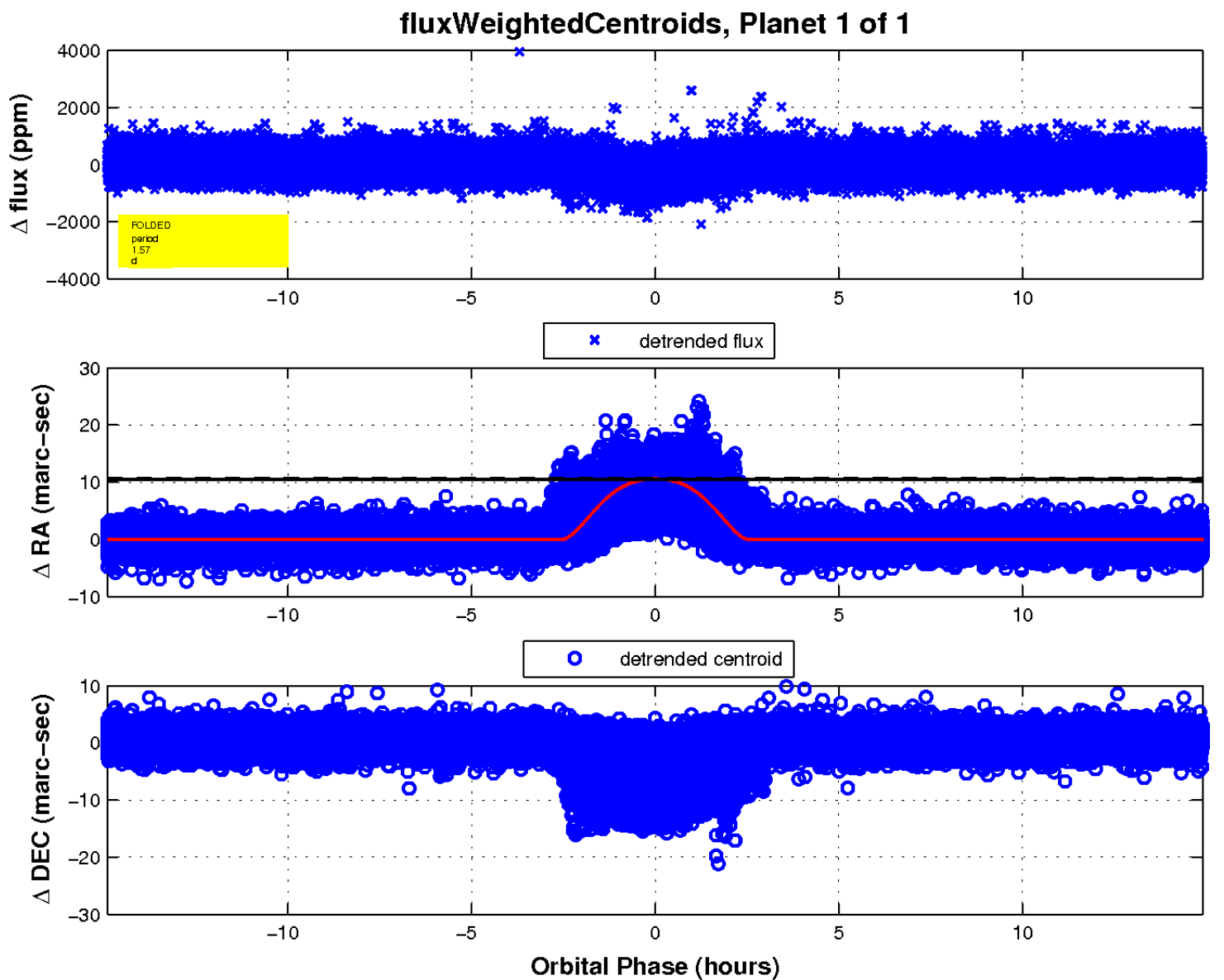
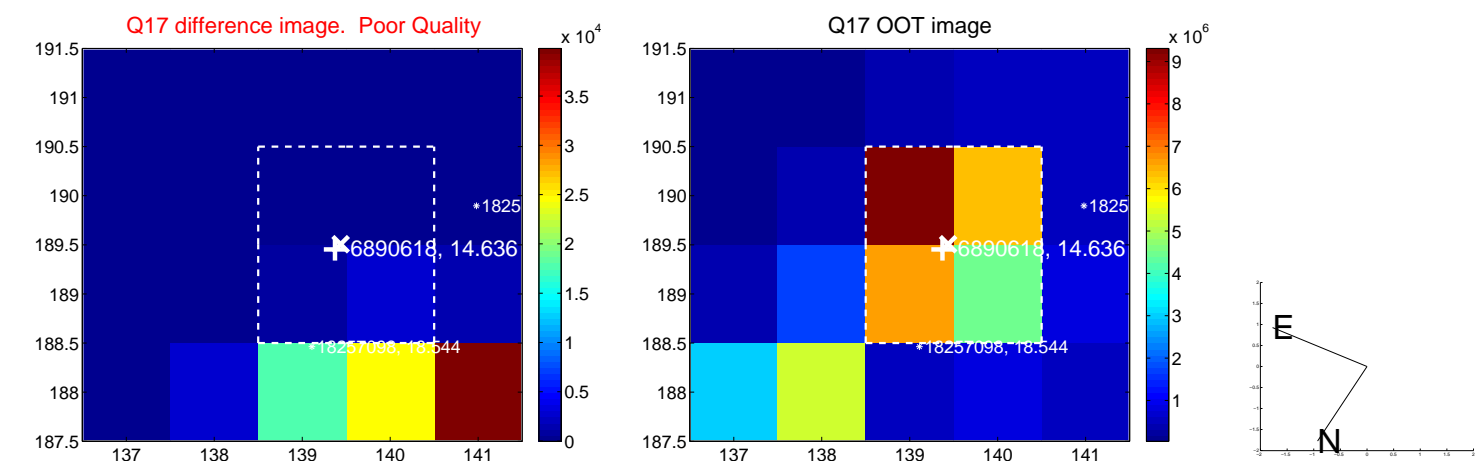
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UKIRT Image

Declination

