

KIC 003459226

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})
003459226-01	OBS	No	0.539550	132.006651	0.7	5.111	10.2	1.8	3.77	7519	0.31	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003459226-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED

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

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

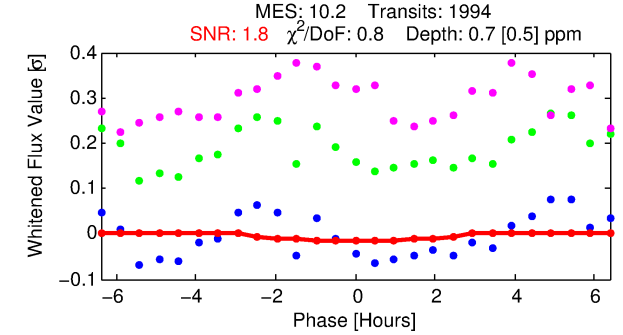
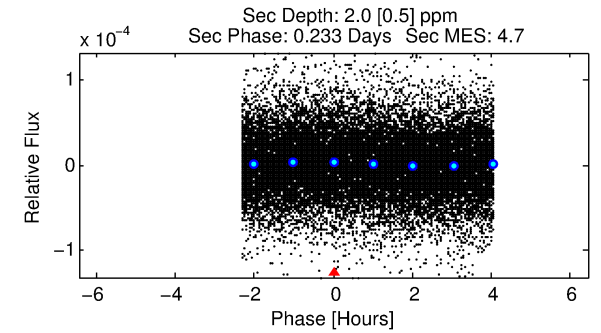
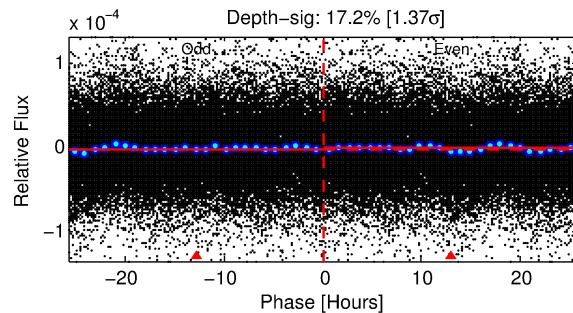
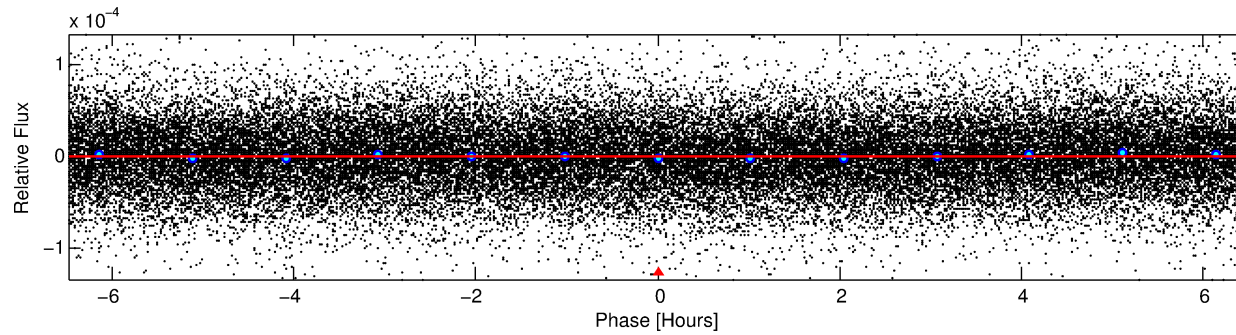
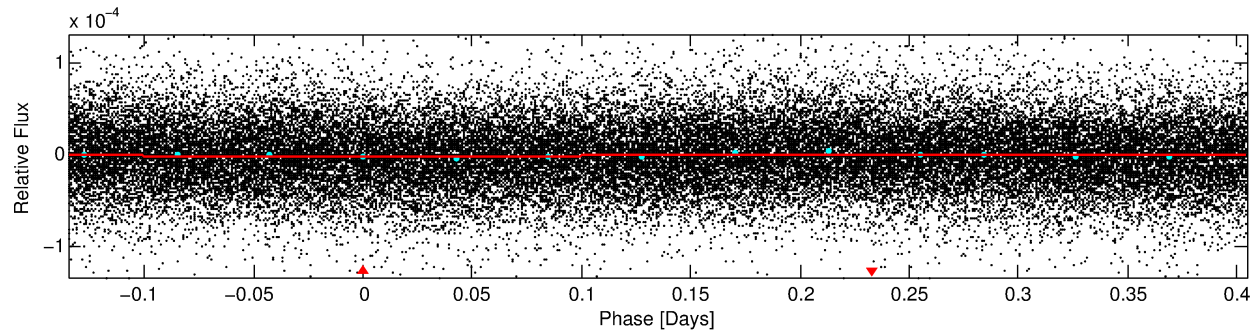
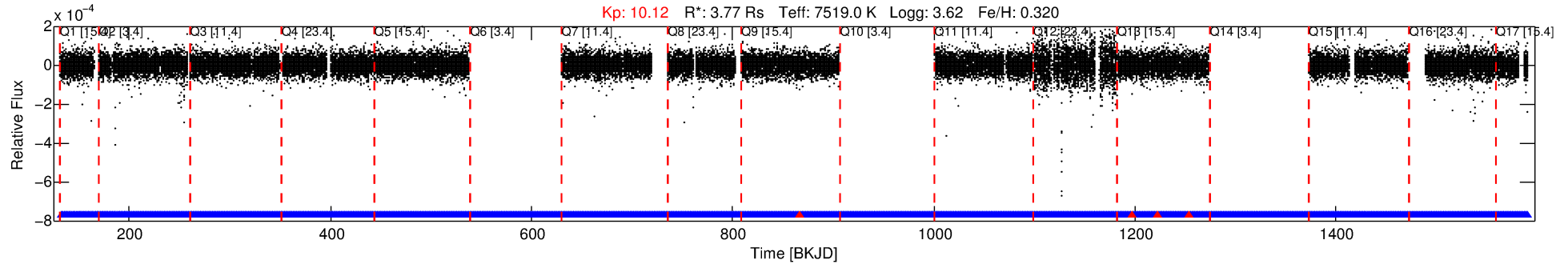
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003459226-01

No Significant Match Found

DV One-Page Summary

KIC: 3459226 Candidate: 1 of 1 Period: 0.540 d



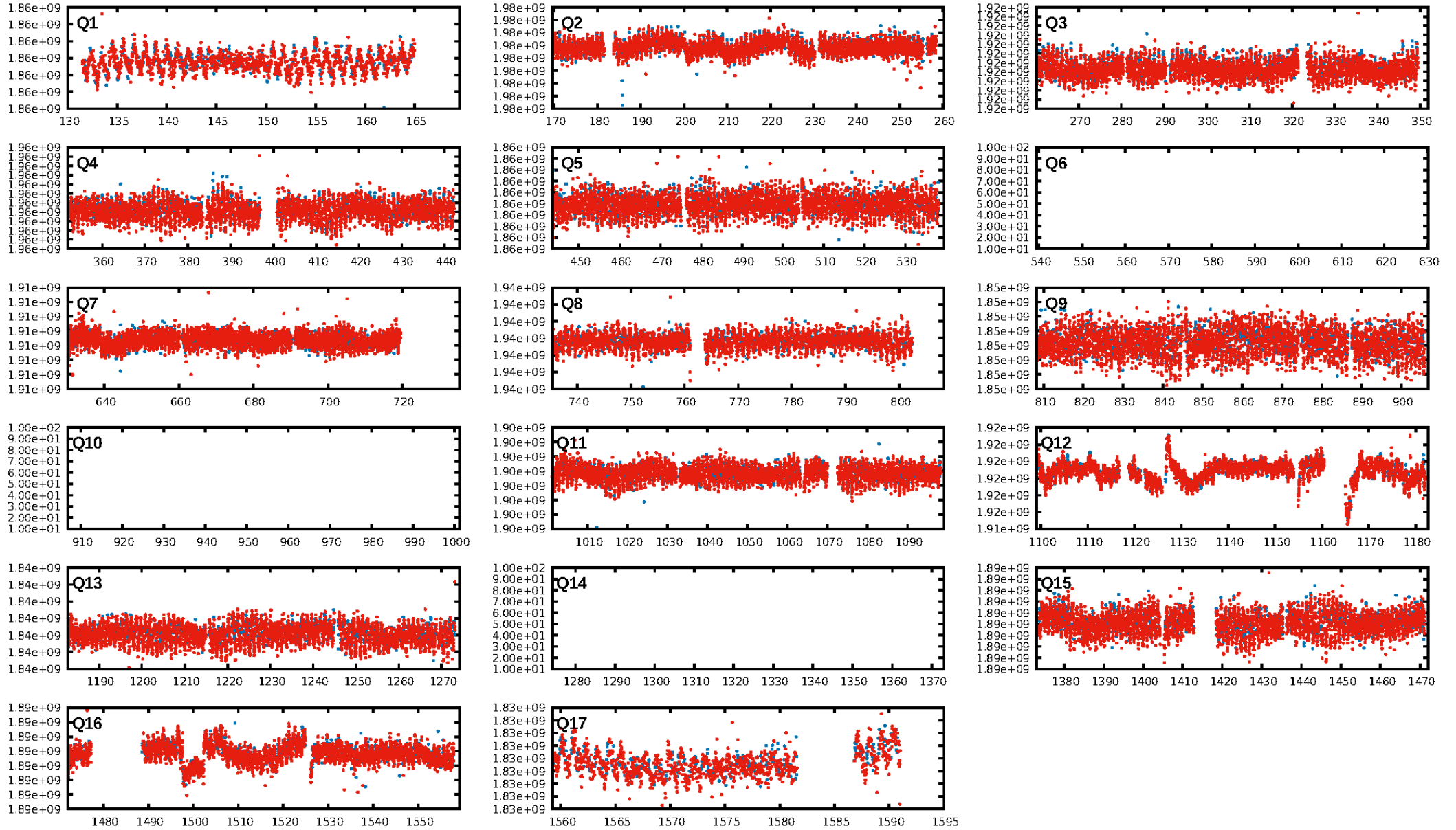
DV Fit Results:

Period = 0.53955 [0.00006] d
Epoch = 132.0067 [0.0248] BKJD
 R_p/R^* = 0.0008 [0.0030]
 a/R^* = 1.05 [2.36]
 b = 0.30 [69.64]
 Seff = N/A
 Teq = N/A
 R_p = 0.31 [1.24] R_e
 a = N/A
 A_g = N/A
 Teffp = N/A

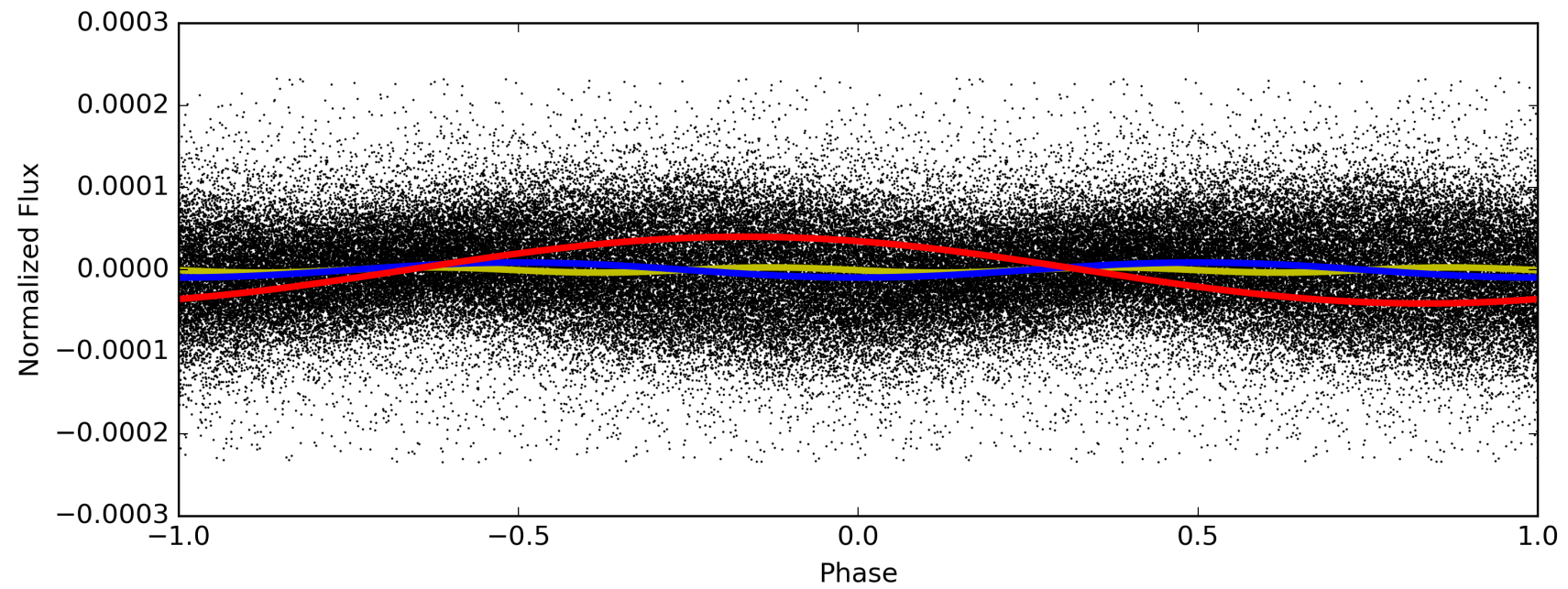
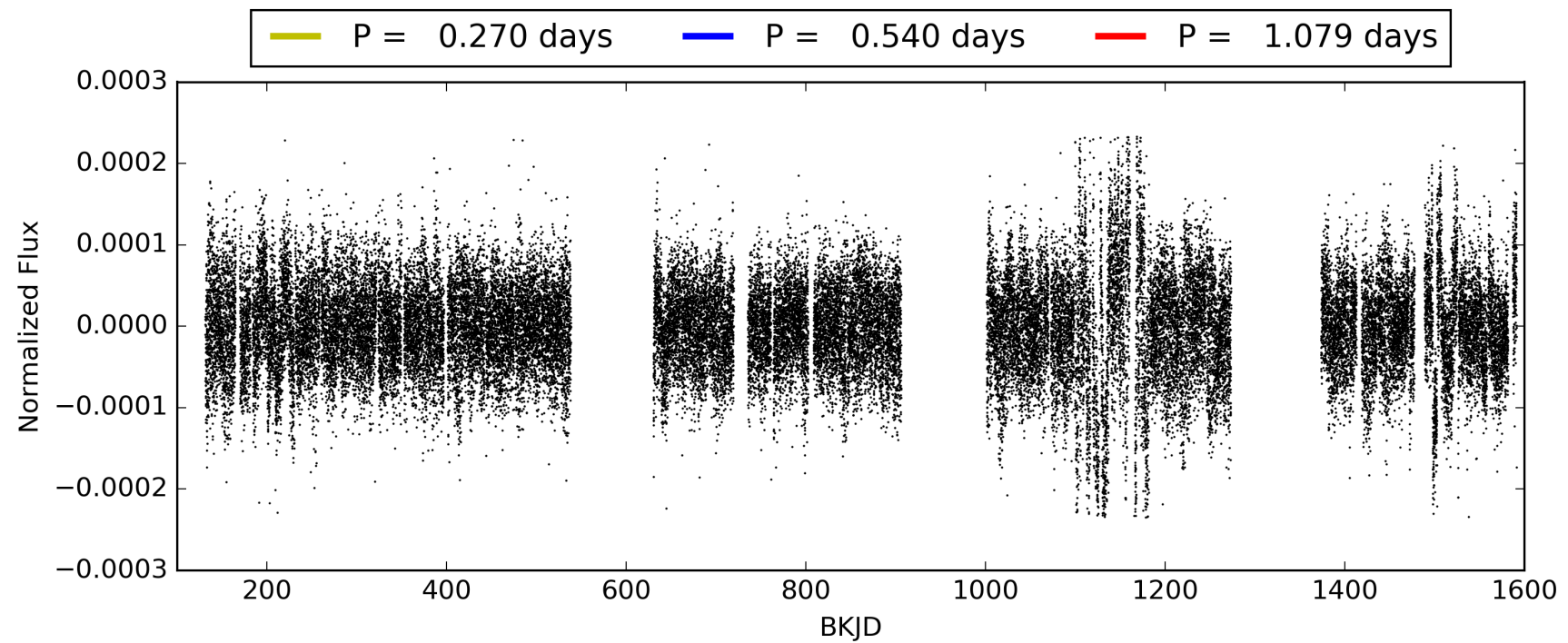
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1878/1882]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003459226-01, PDC Light Curves

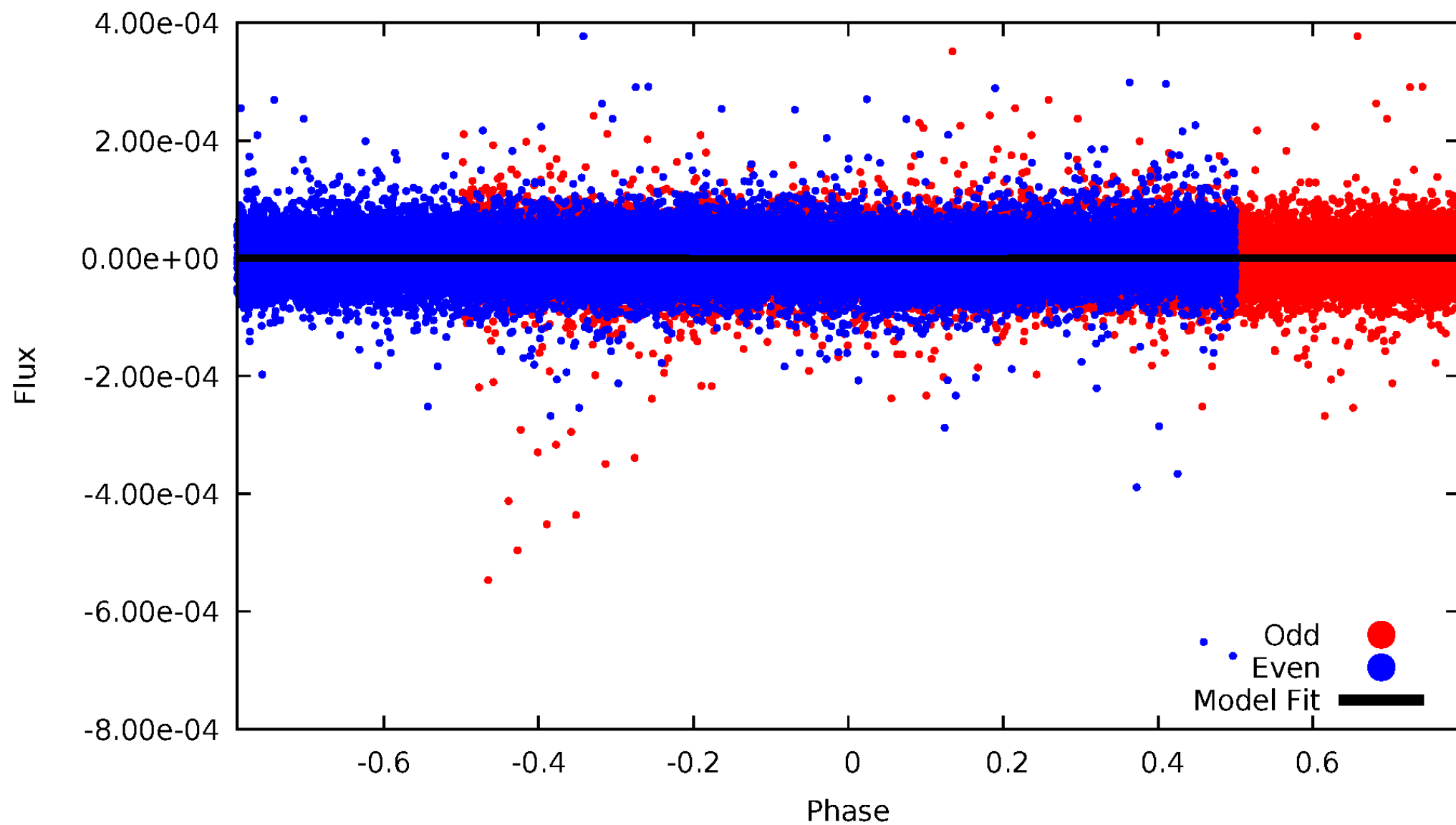


TCE 003459226-01



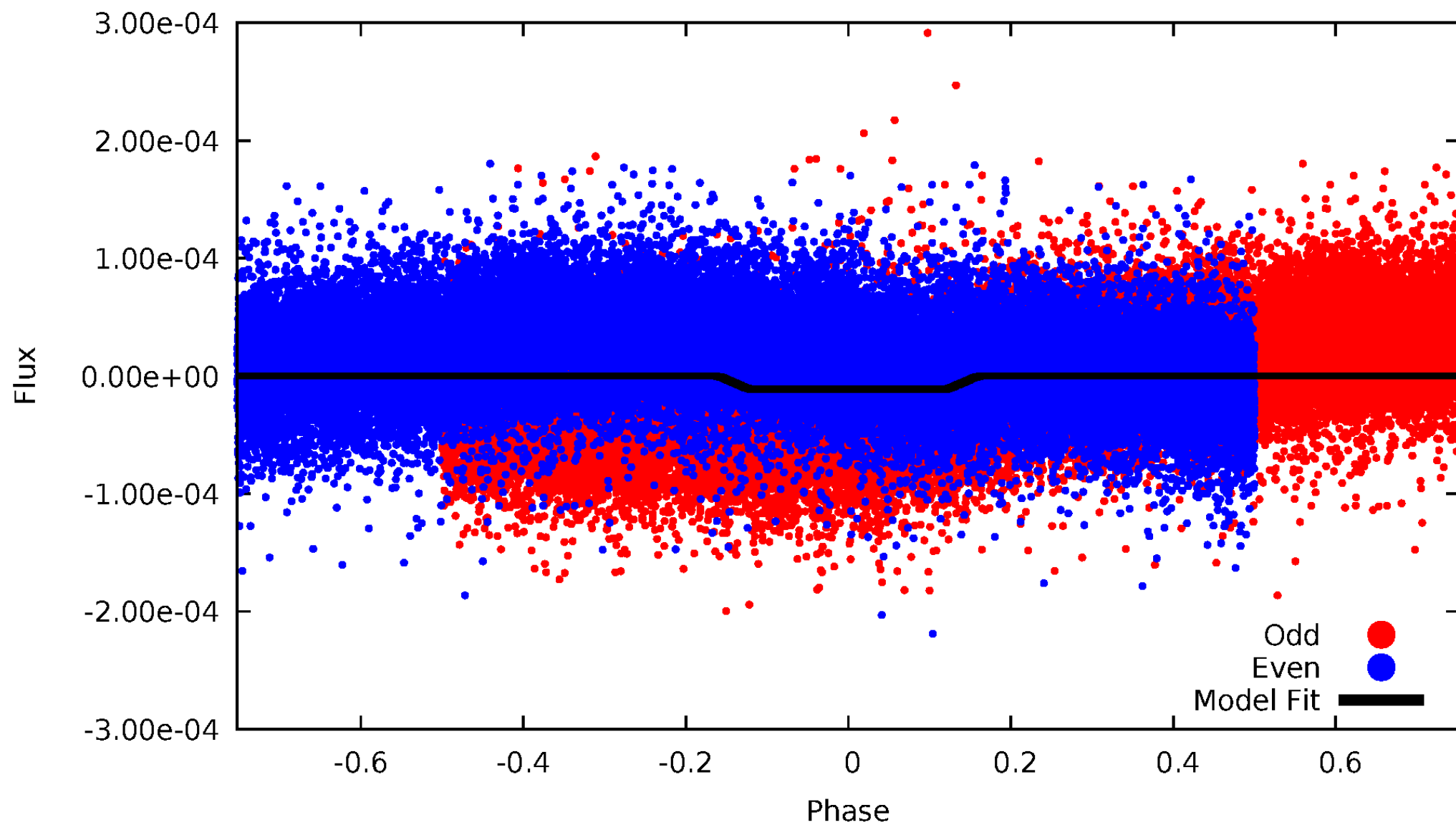
DV Odd/Even

TCE 003459226-01



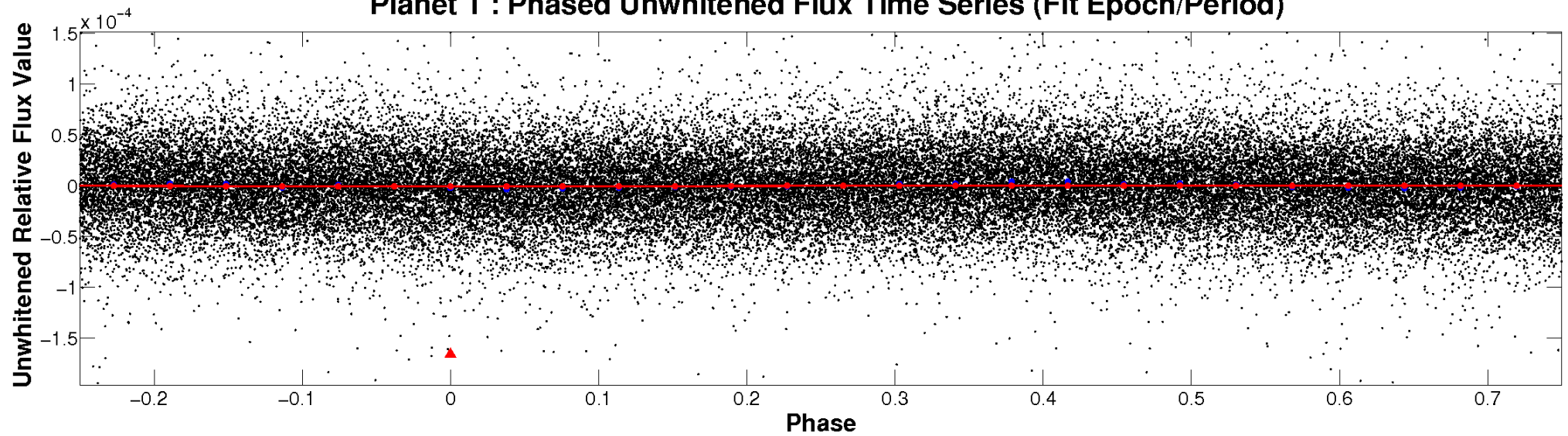
ALT Odd/Even

TCE 003459226-01

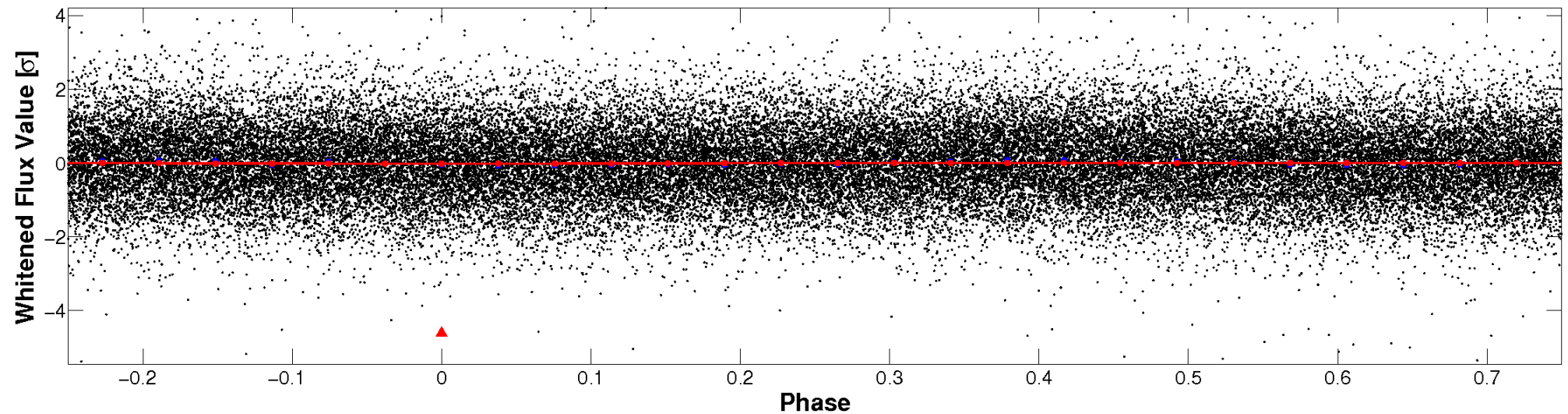


Non-Whitened Vs. Whitened Light Curve

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

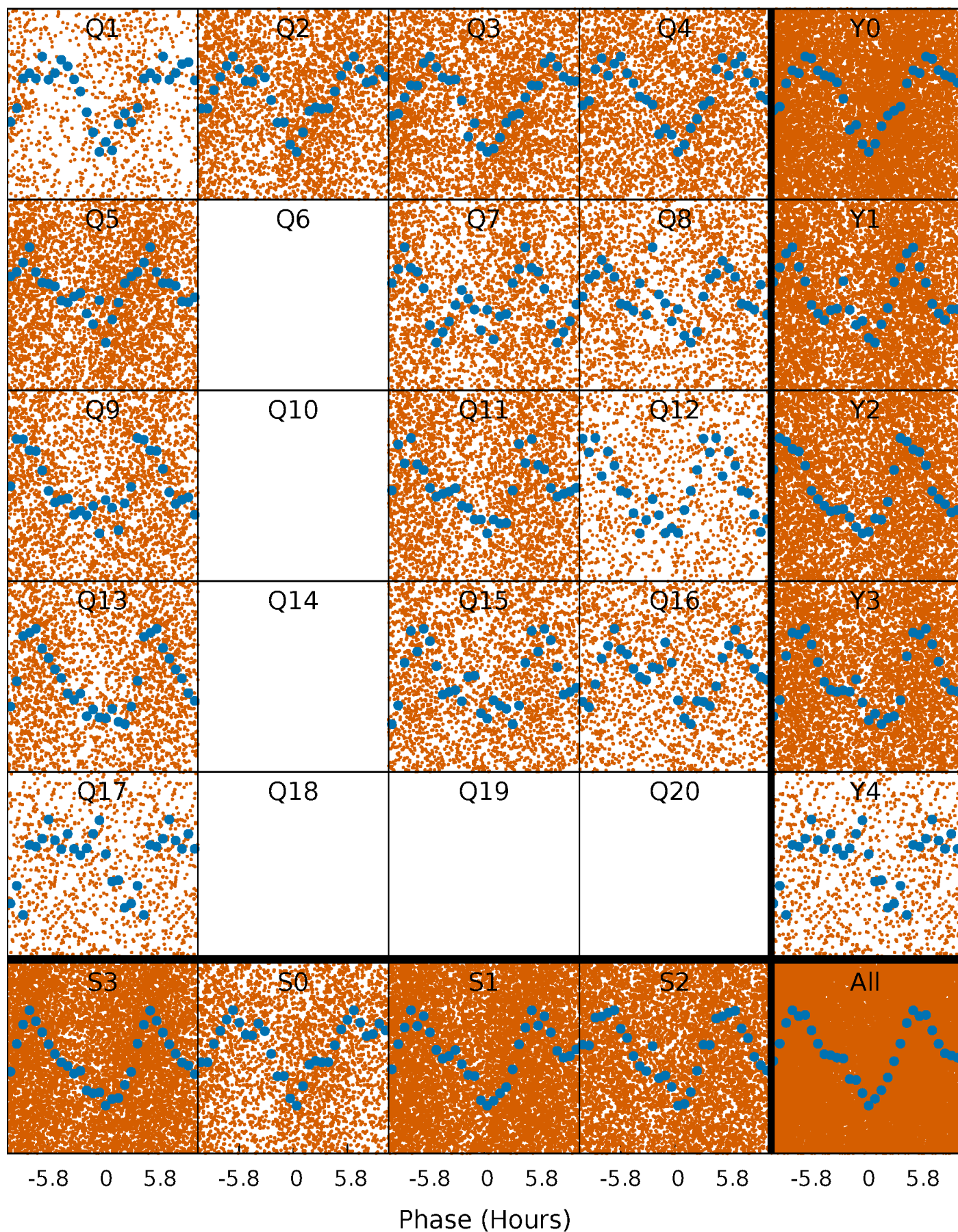


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



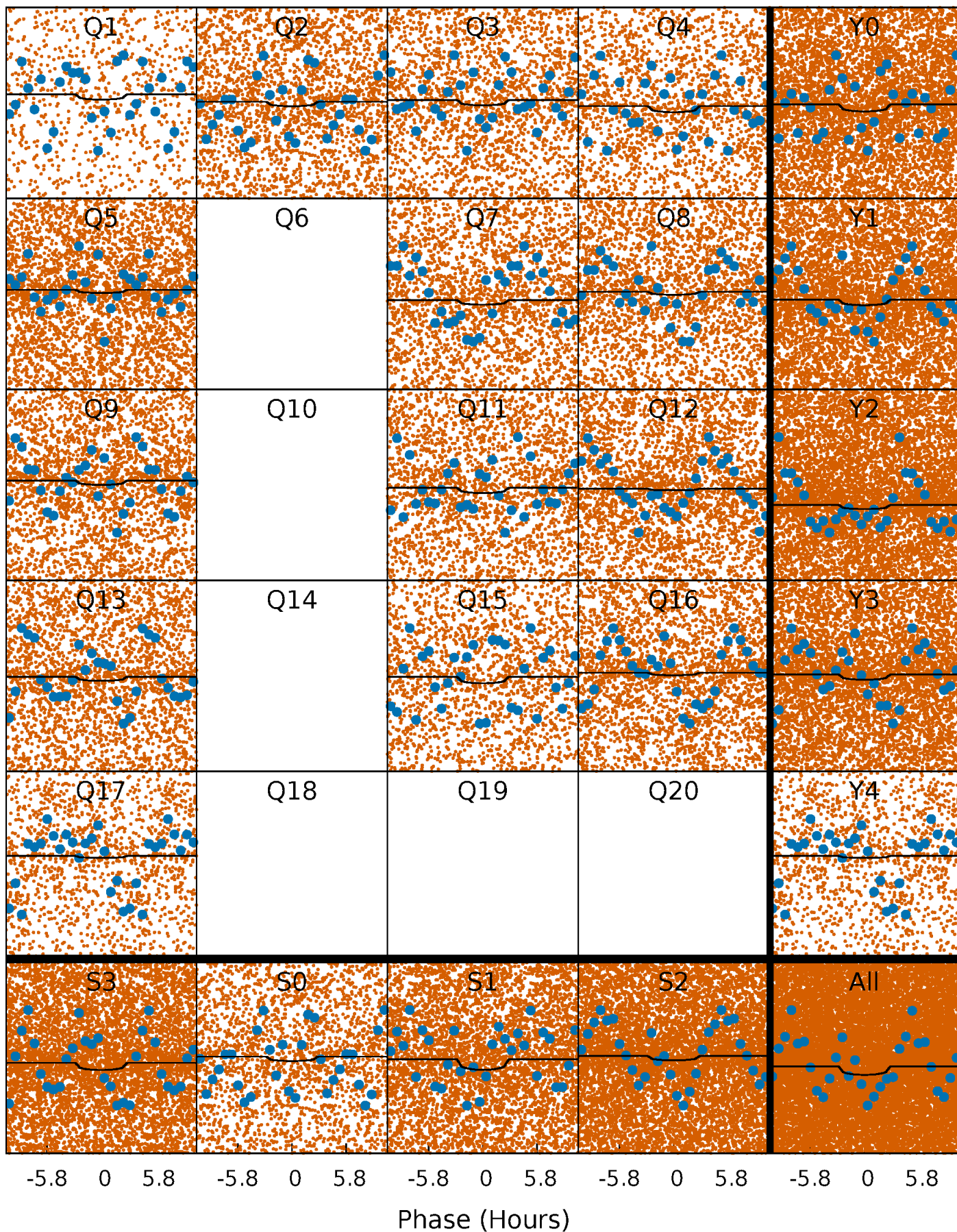
PDC Quarter-Phased Transit Curves

TCE 003459226-01 P= 0.539550 Days $T_0=132.006651$ (BKJD)



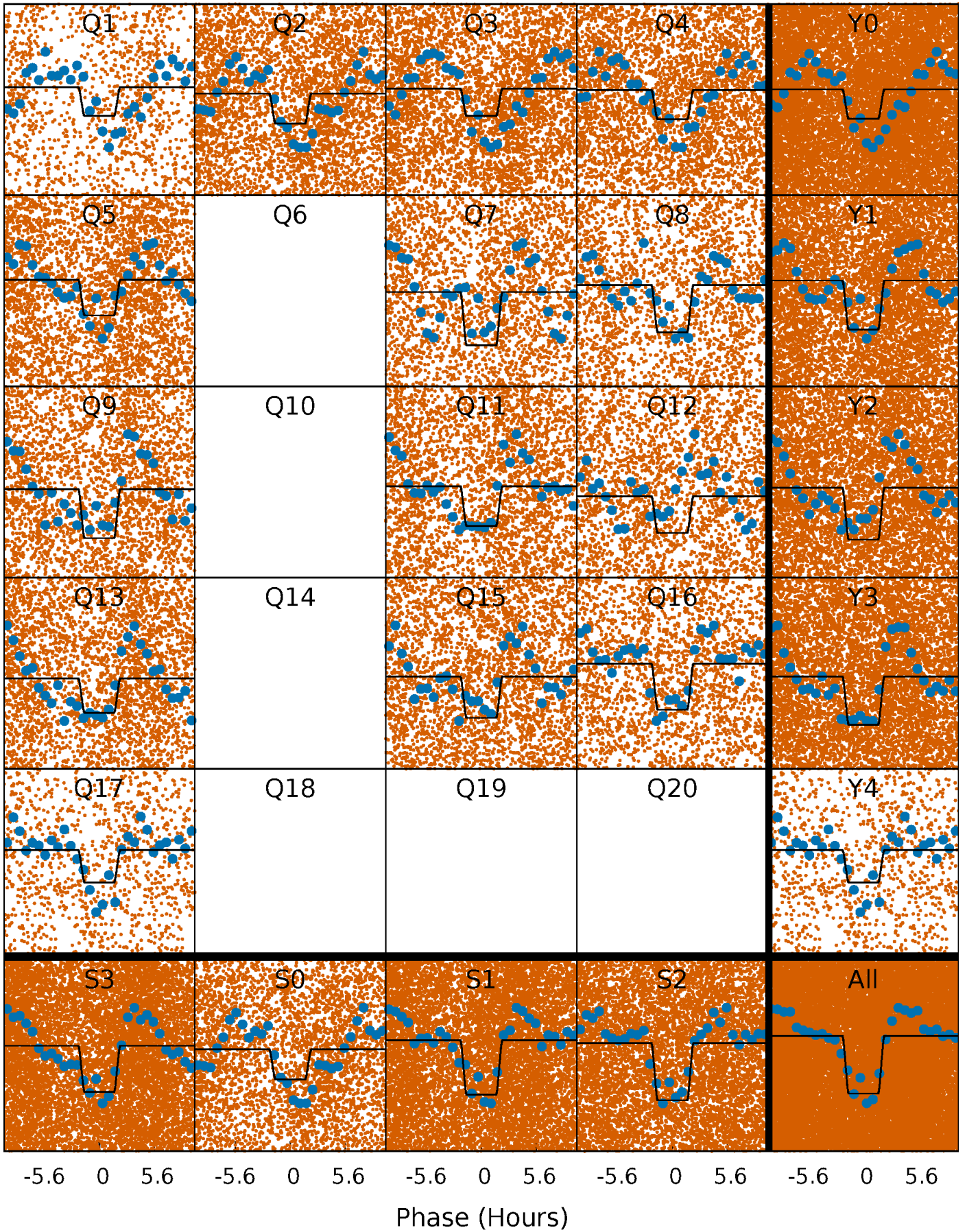
DV Quarter-Phased Transit Curves

TCE 003459226-01 P= 0.539550 Days $T_0=132.006651$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

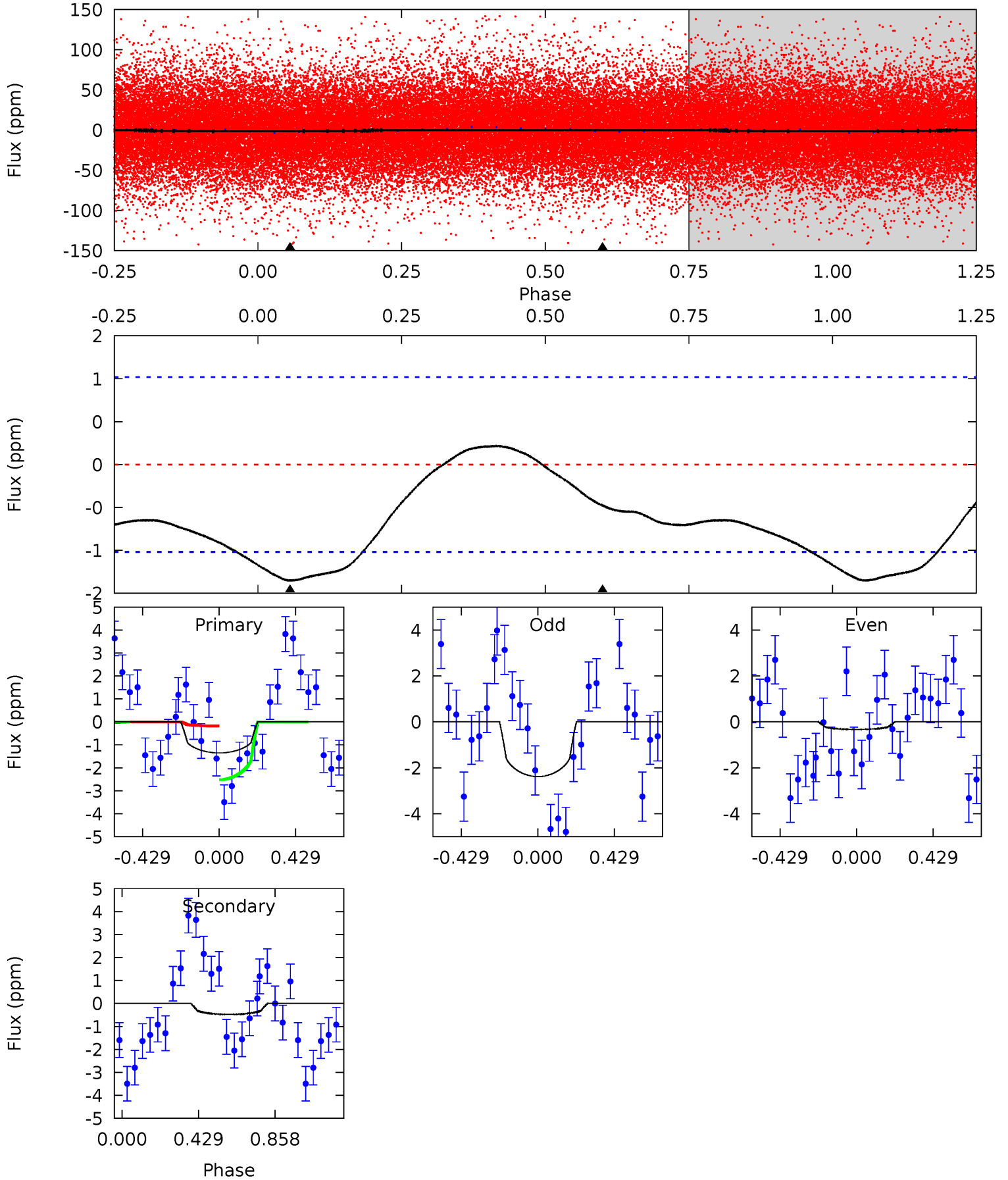
TCE 003459226-01 P= 0.539613 Days $T_0=131.959619$ (BKJD)



DV Model-Shift Uniqueness Test

003459226-01, P = 0.539550 Days, E = 131.467101 Days

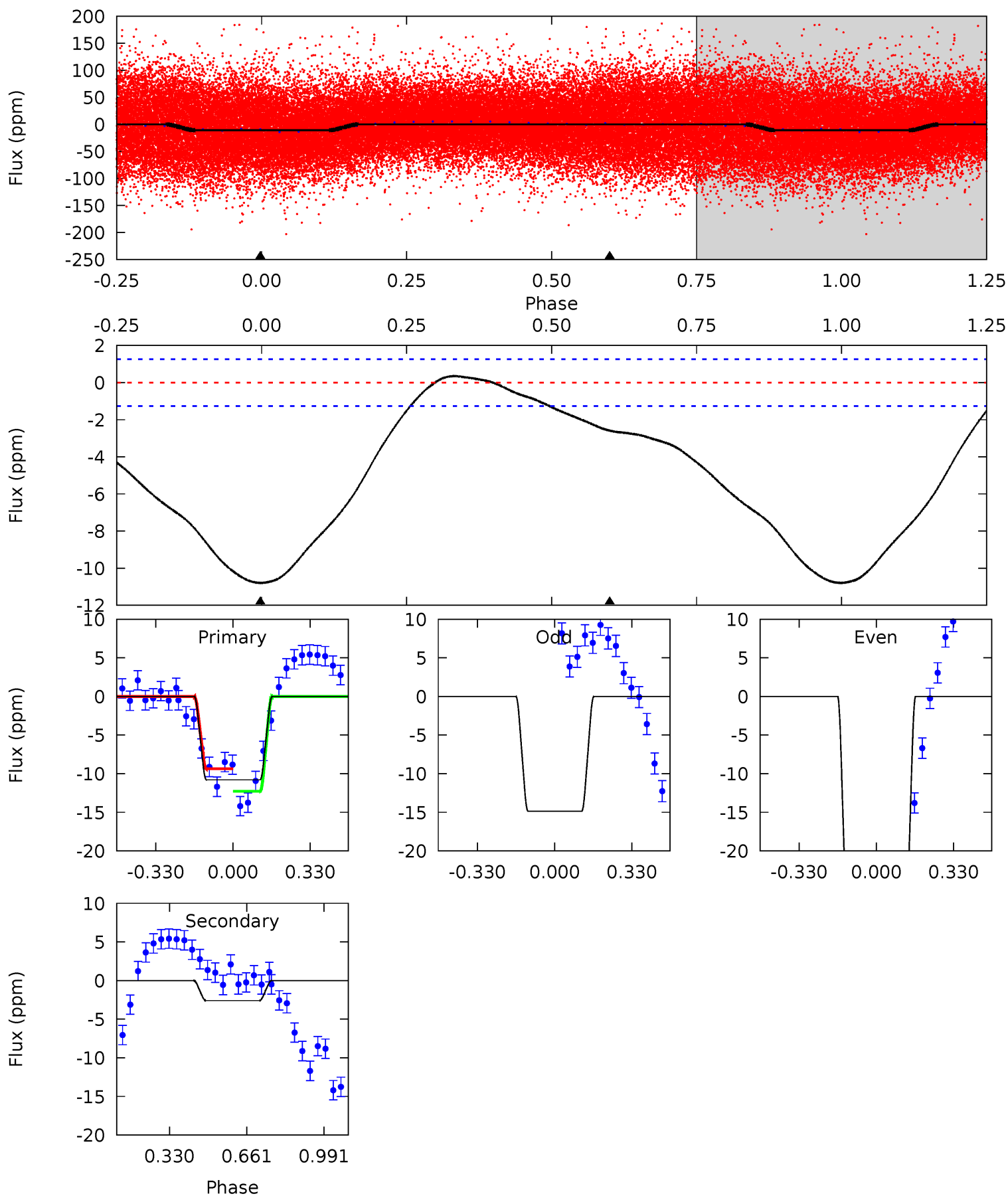
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.64	2.00	0	0	4.25	0.79	0.96	5.64	5.64	2.00	2.00	4.35	1.20	0.14	4.94



Alt Model-Shift Uniqueness Test

003459226-01, P = 0.539613 Days, E = 131.420006 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.8	8.83	0	0	4.31	0.97	1.99	36.8	36.8	8.83	8.83	37.1	1.14	0.03	4.24



Stellar Parameters For KIC 003459226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7519^{+75}_{-90}	$3.622^{+0.247}_{-0.082}$	$0.320^{+0.050}_{-0.200}$	$3.772^{+0.689}_{-1.033}$	$2.174^{+0.296}_{-0.215}$	$0.057^{+0.085}_{-0.017}$
	+1%/-1%	+7%/-2%	+16%/-62%	+18%/-27%	+14%/-10%	+150%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003459226-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-0 ± 0	$0.92^{+0.99}_{-0.67}$	6835^{+329}_{-507}	-4986^{+11786}_{-576}	$0.083^{+0.927}_{-0.067}$
Alt.	-3 ± 0	$1.50^{+1.13}_{-0.93}$	6809^{+338}_{-482}	-4449^{+11735}_{-863}	$0.181^{+1.065}_{-0.123}$

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 003459226-01. **Kepler magnitude: 10.12.** Transit SNR 1.85

There are 0 quarters with good PRF difference image offsets

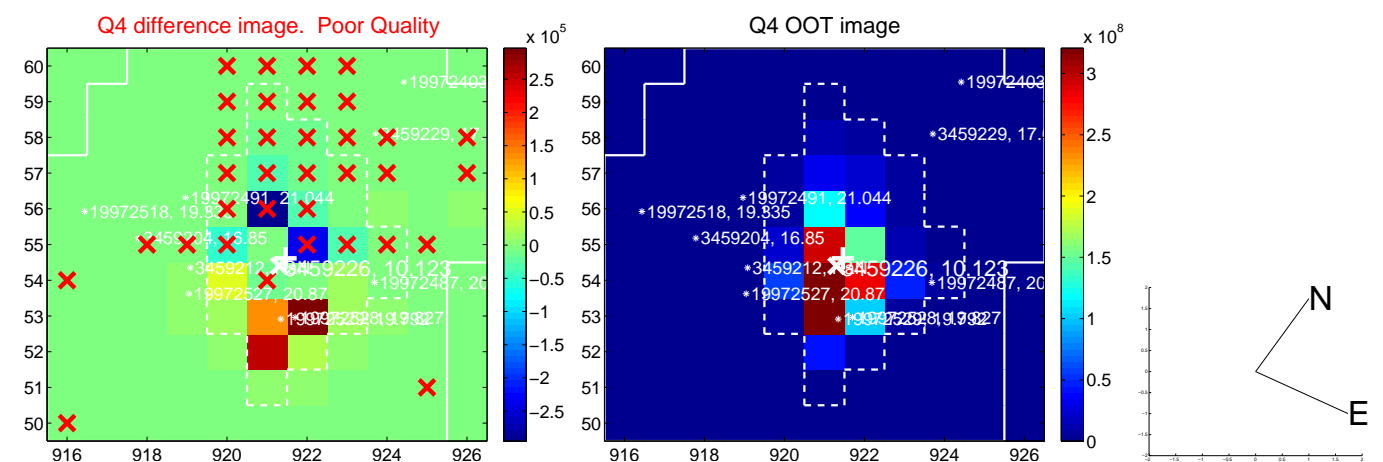
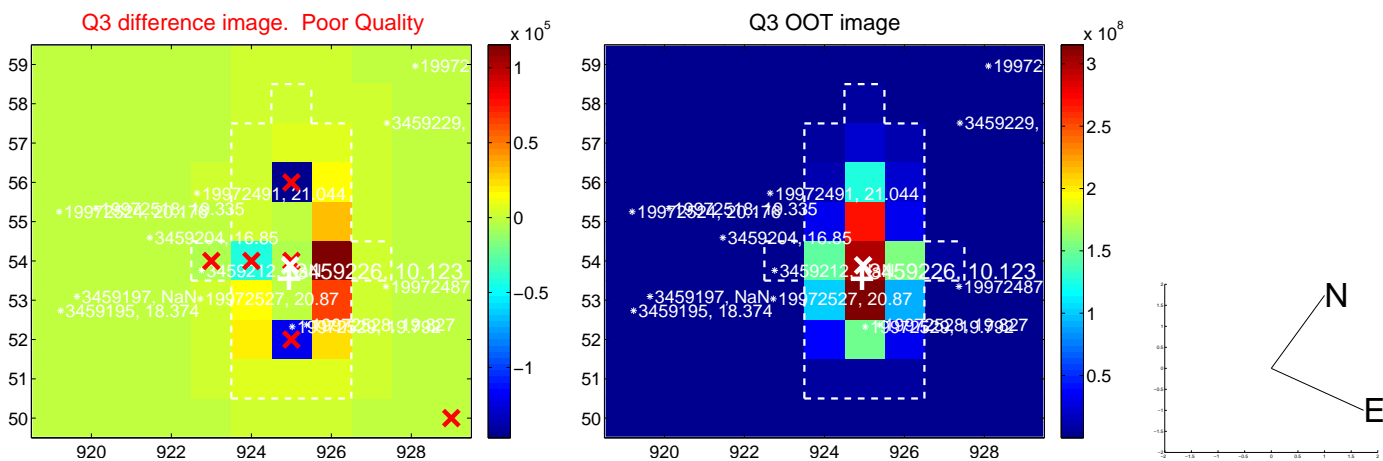
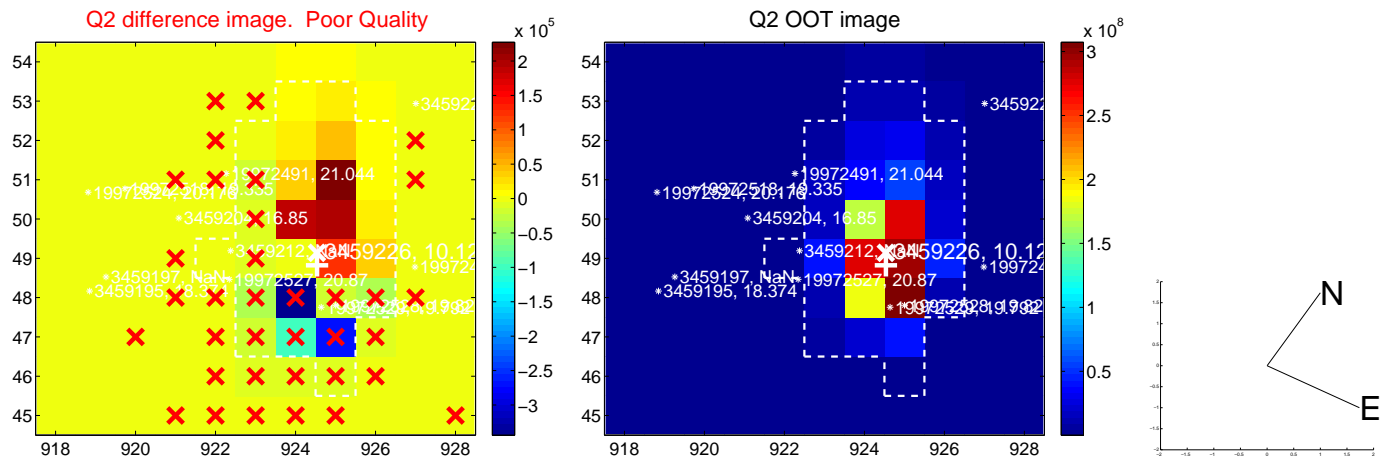
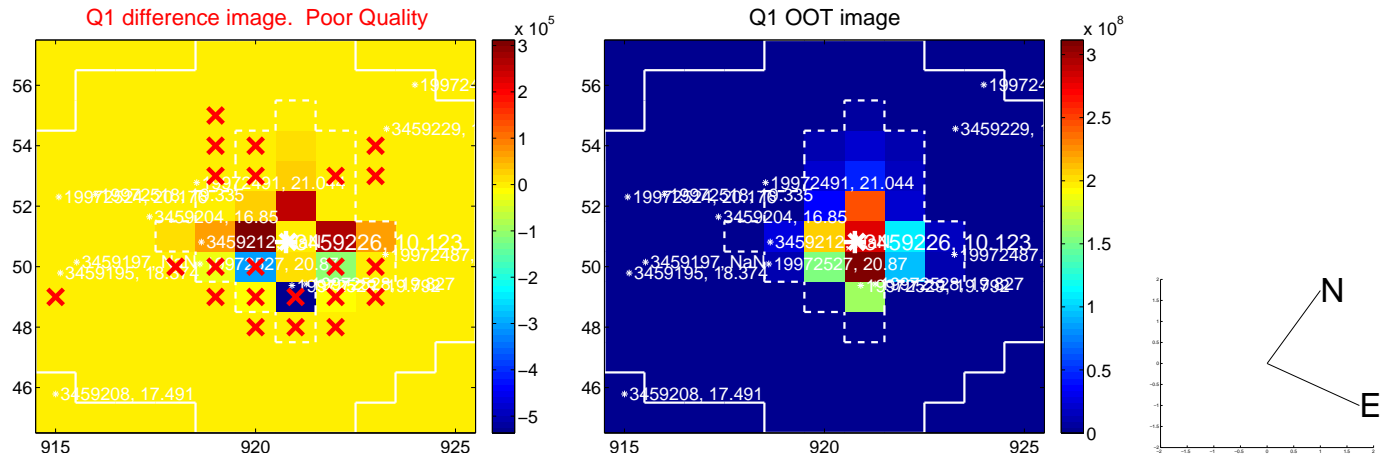
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	—	—	—	—

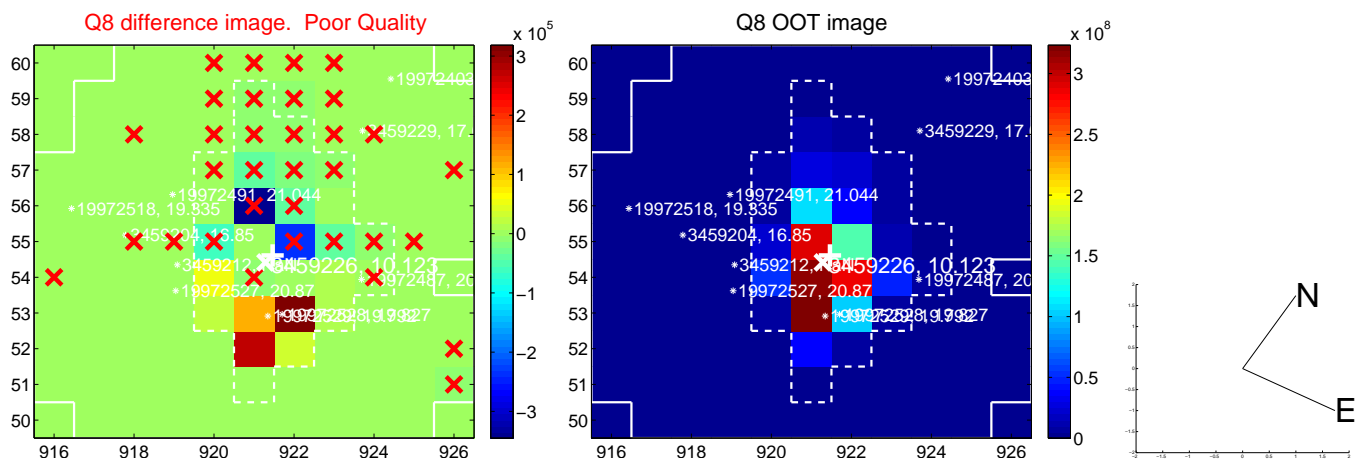
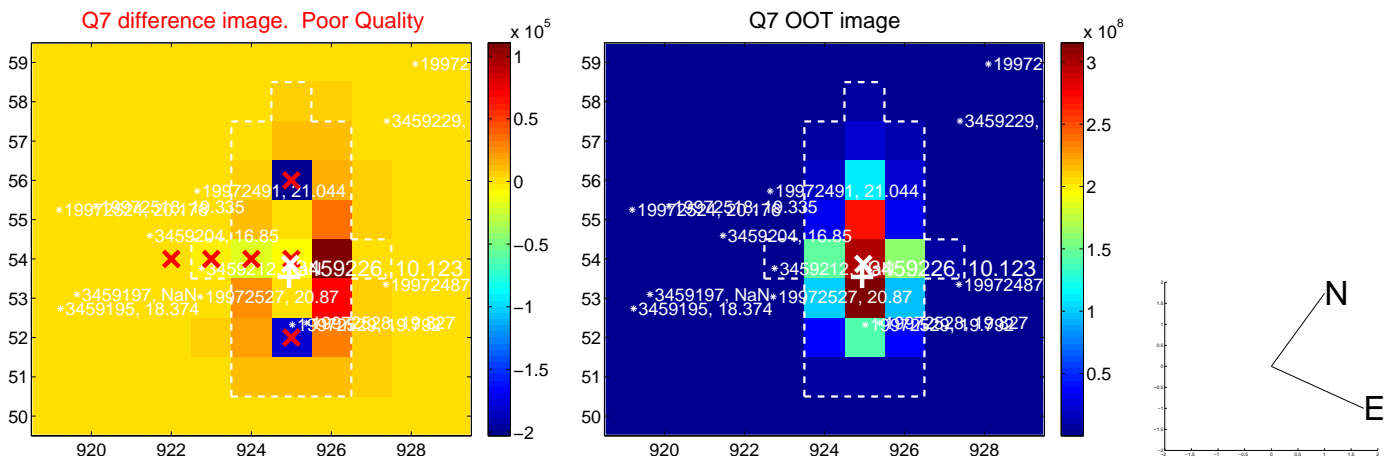
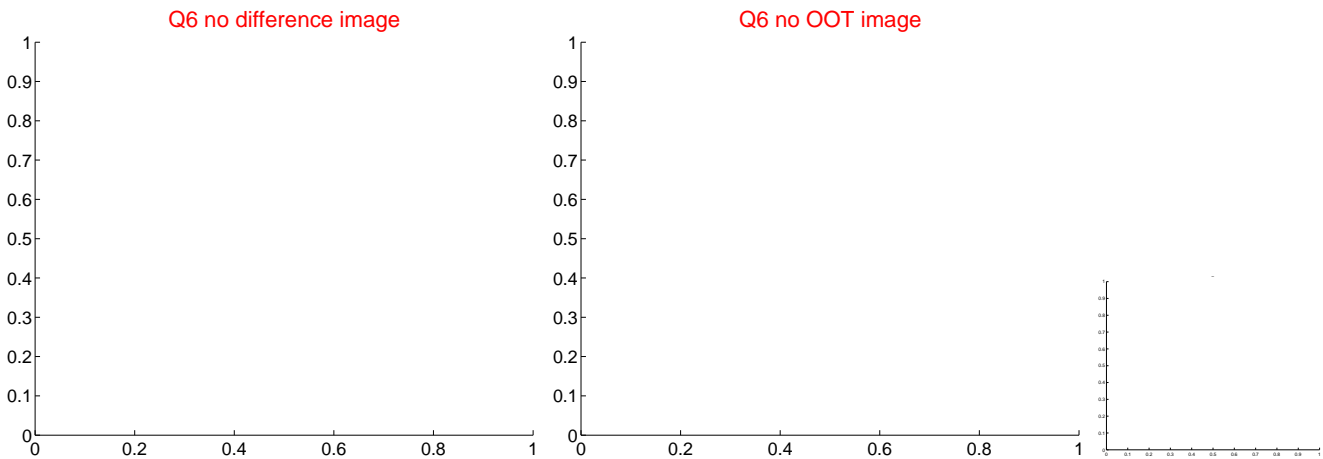
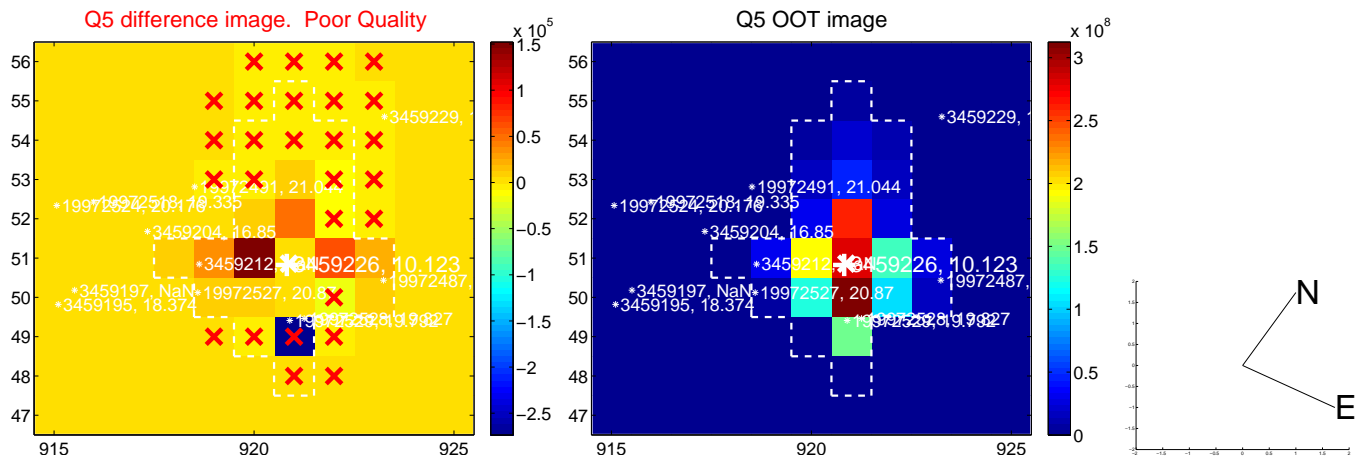


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

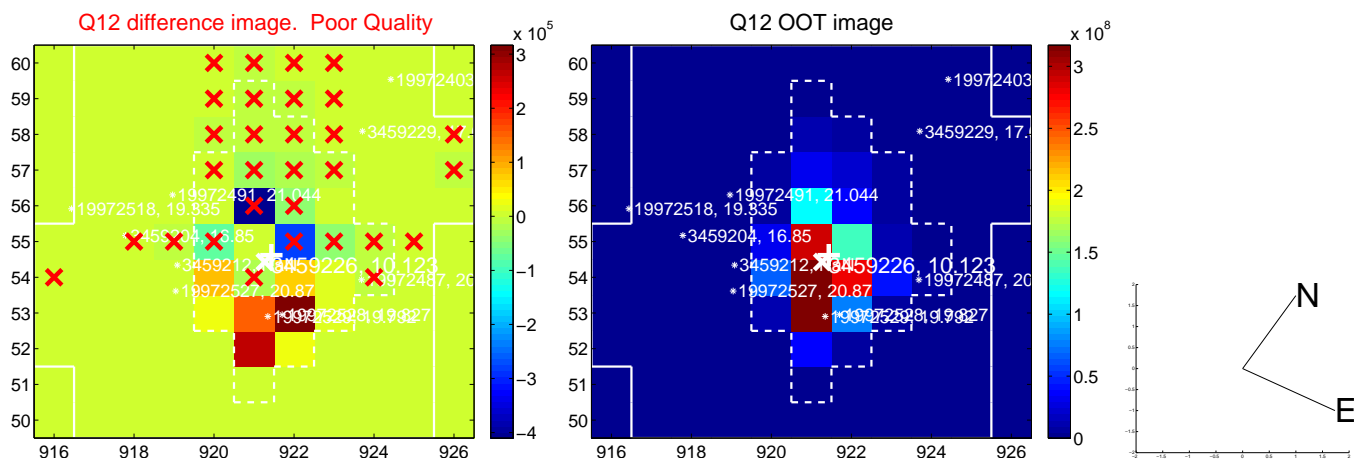
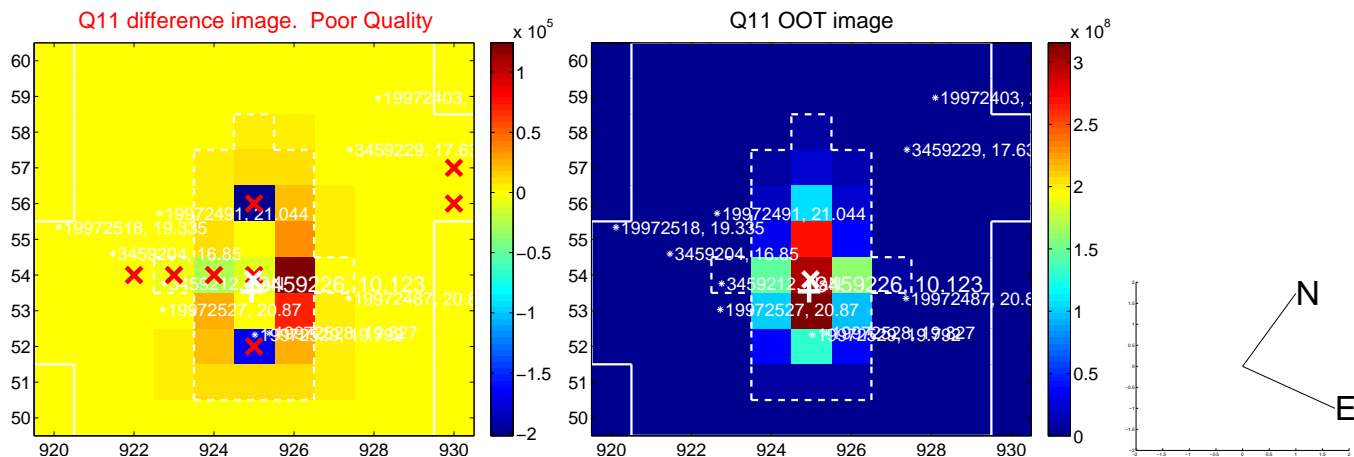
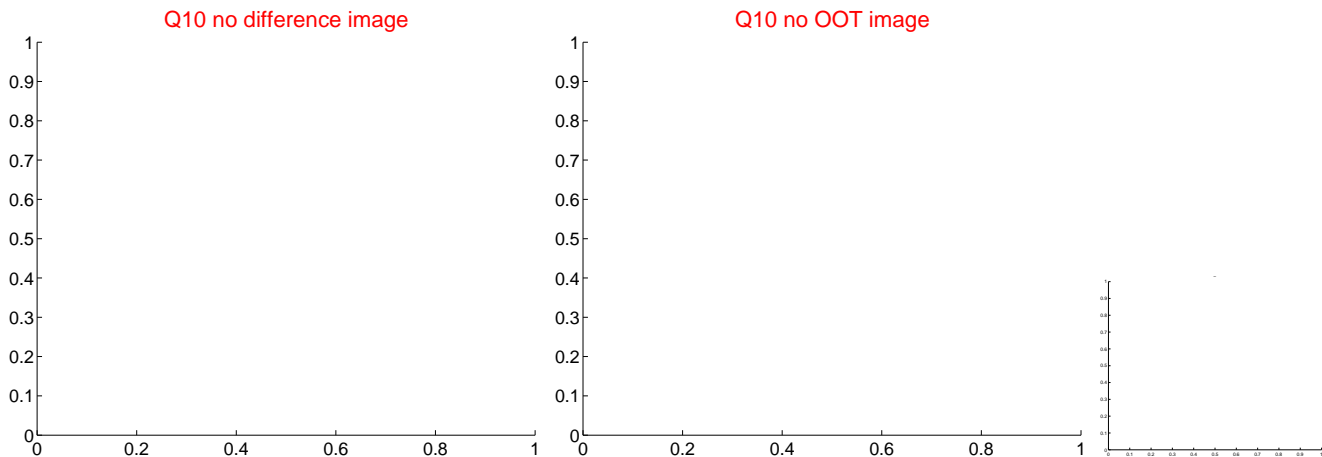
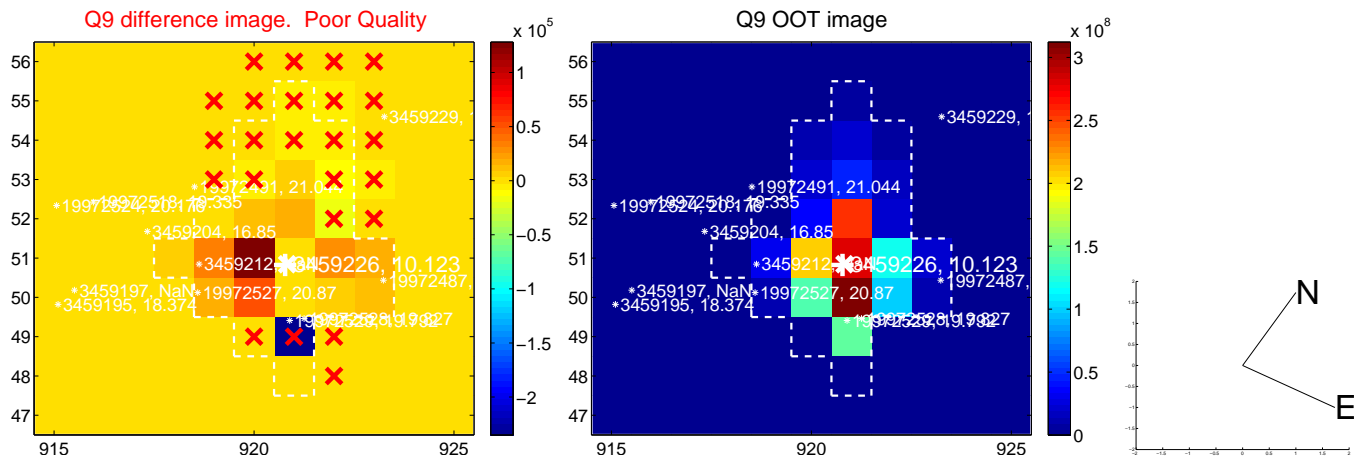
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



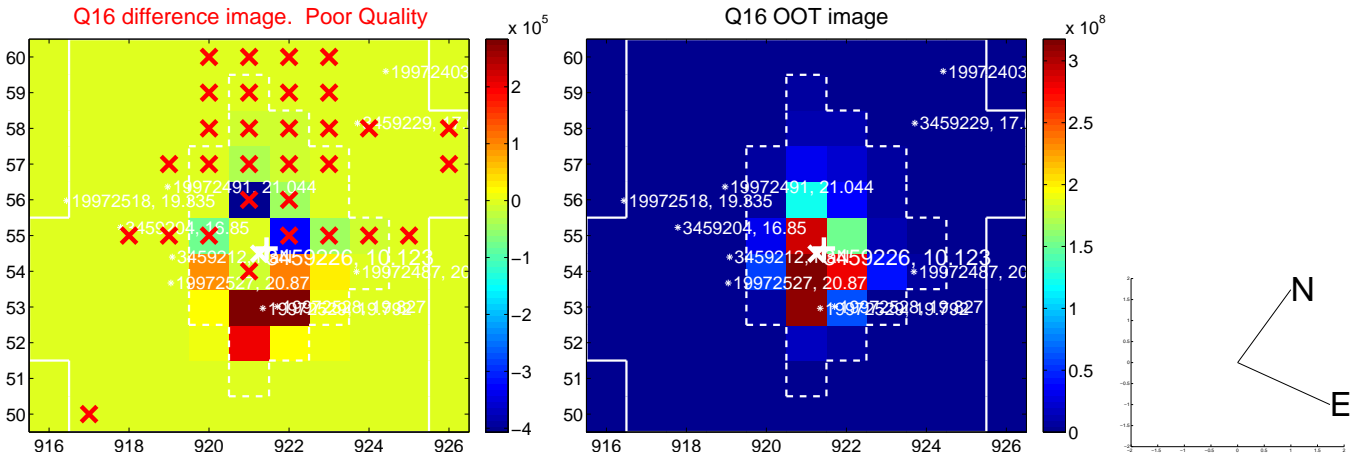
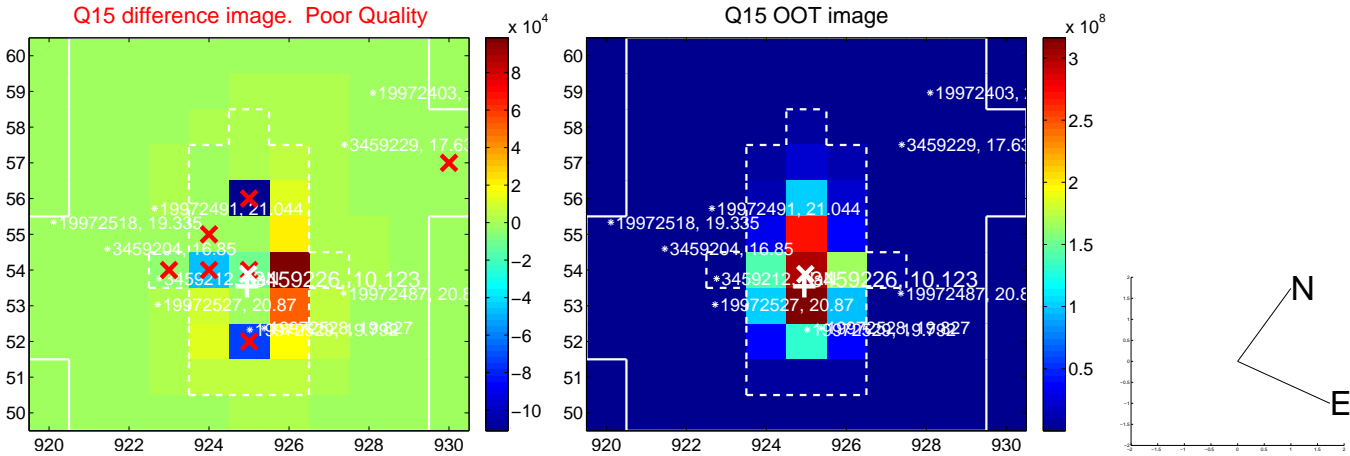
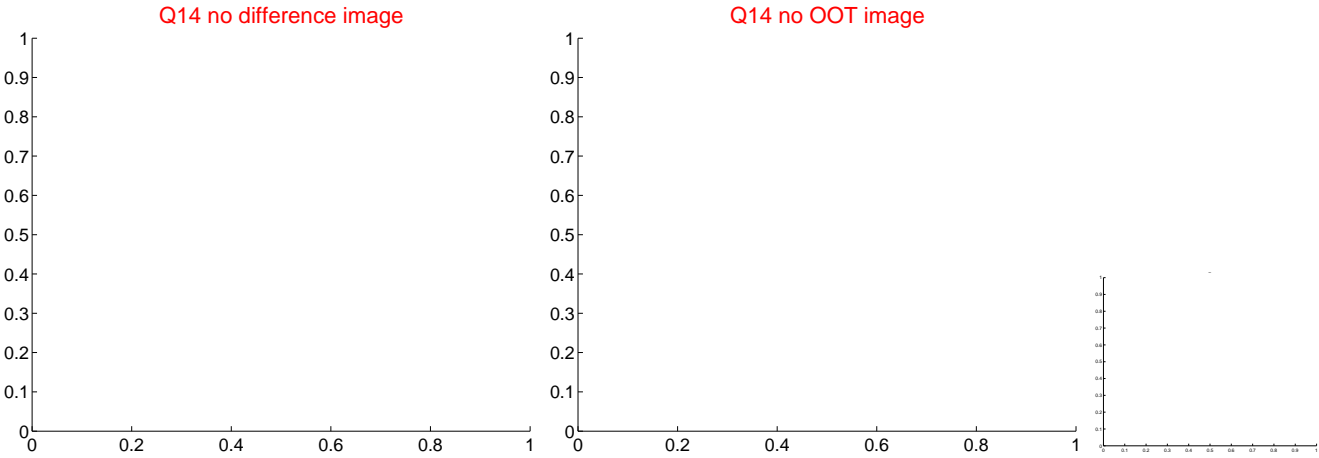
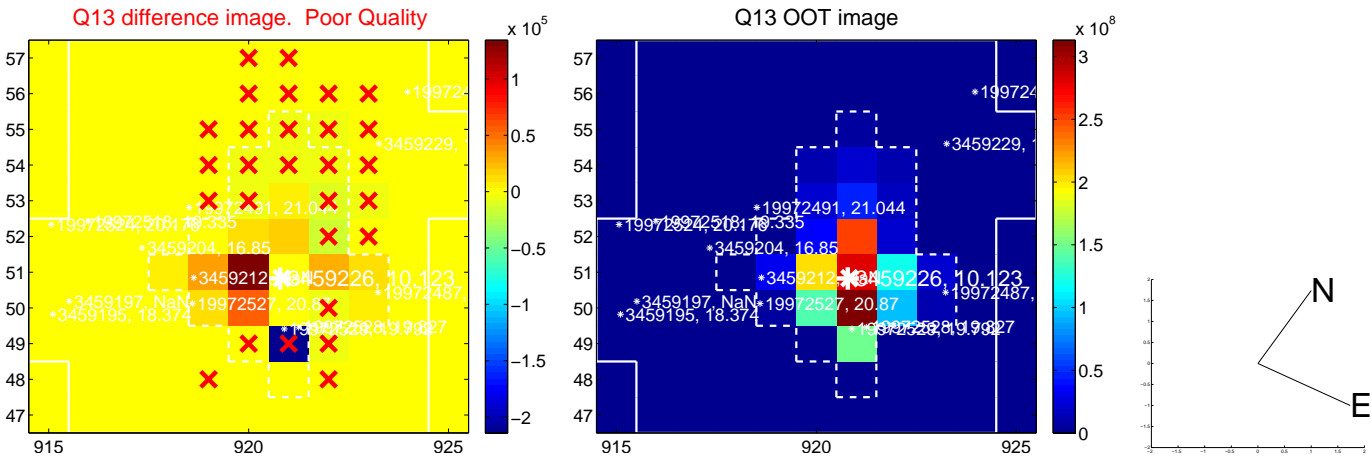
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

