

KIC 006550607

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})
006550607-01	OBS	No	0.600053	132.042494	5.8	5.232	7.7	6.4	3.33	8040	0.93	132086.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006550607-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

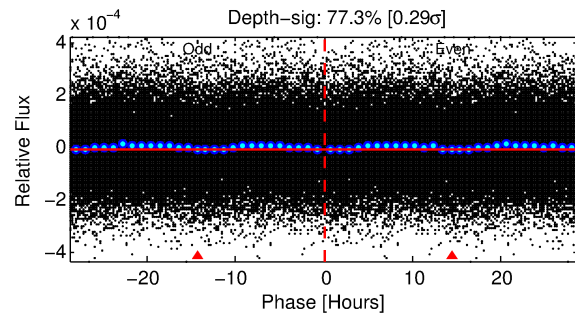
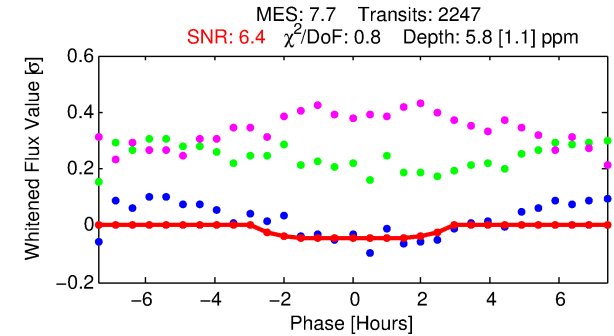
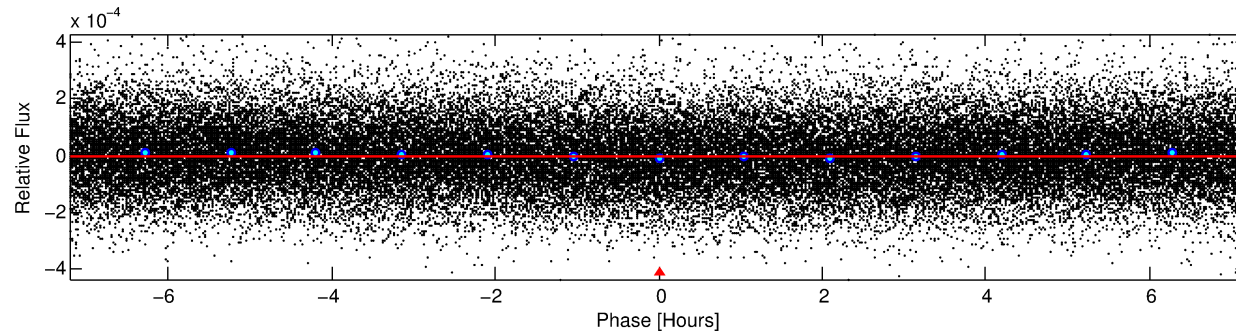
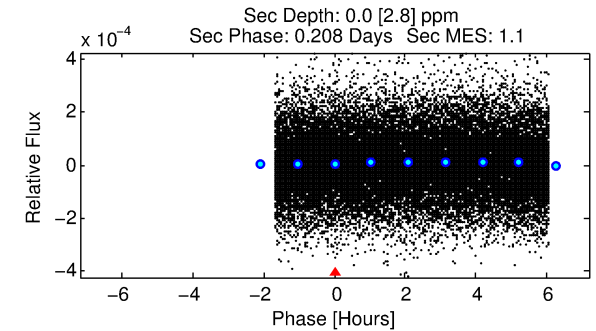
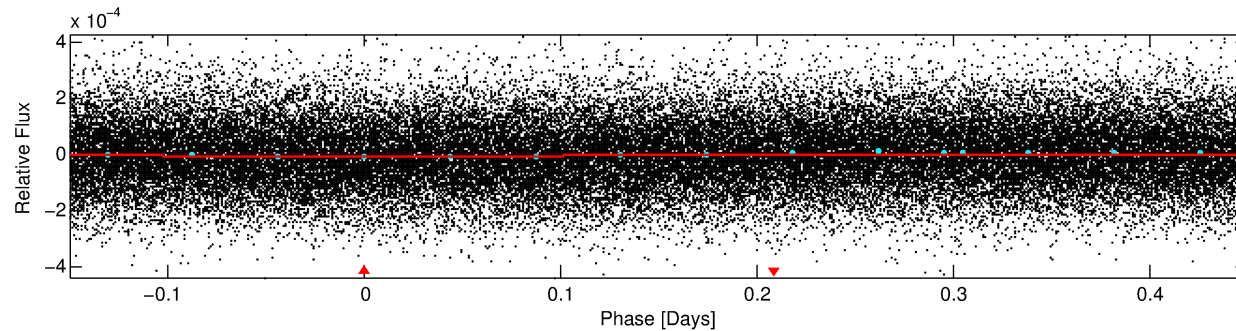
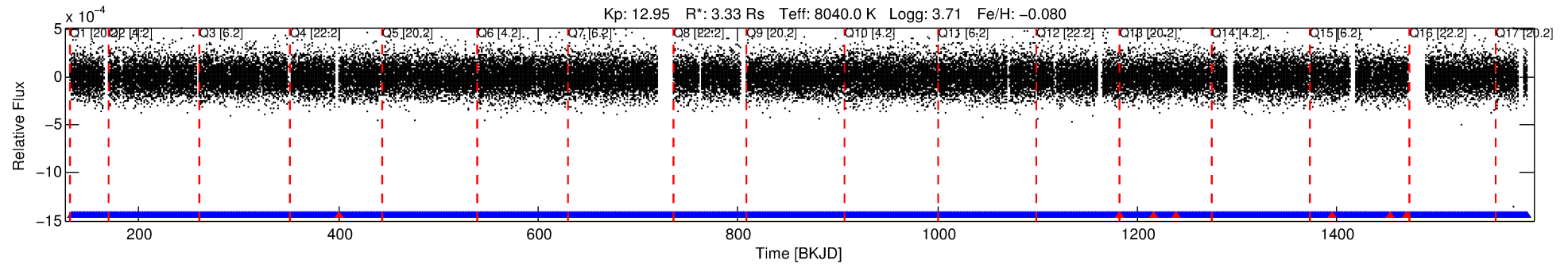
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006550607-01

No Significant Match Found

DV One-Page Summary

KIC: 6550607 Candidate: 1 of 1 Period: 0.600 d



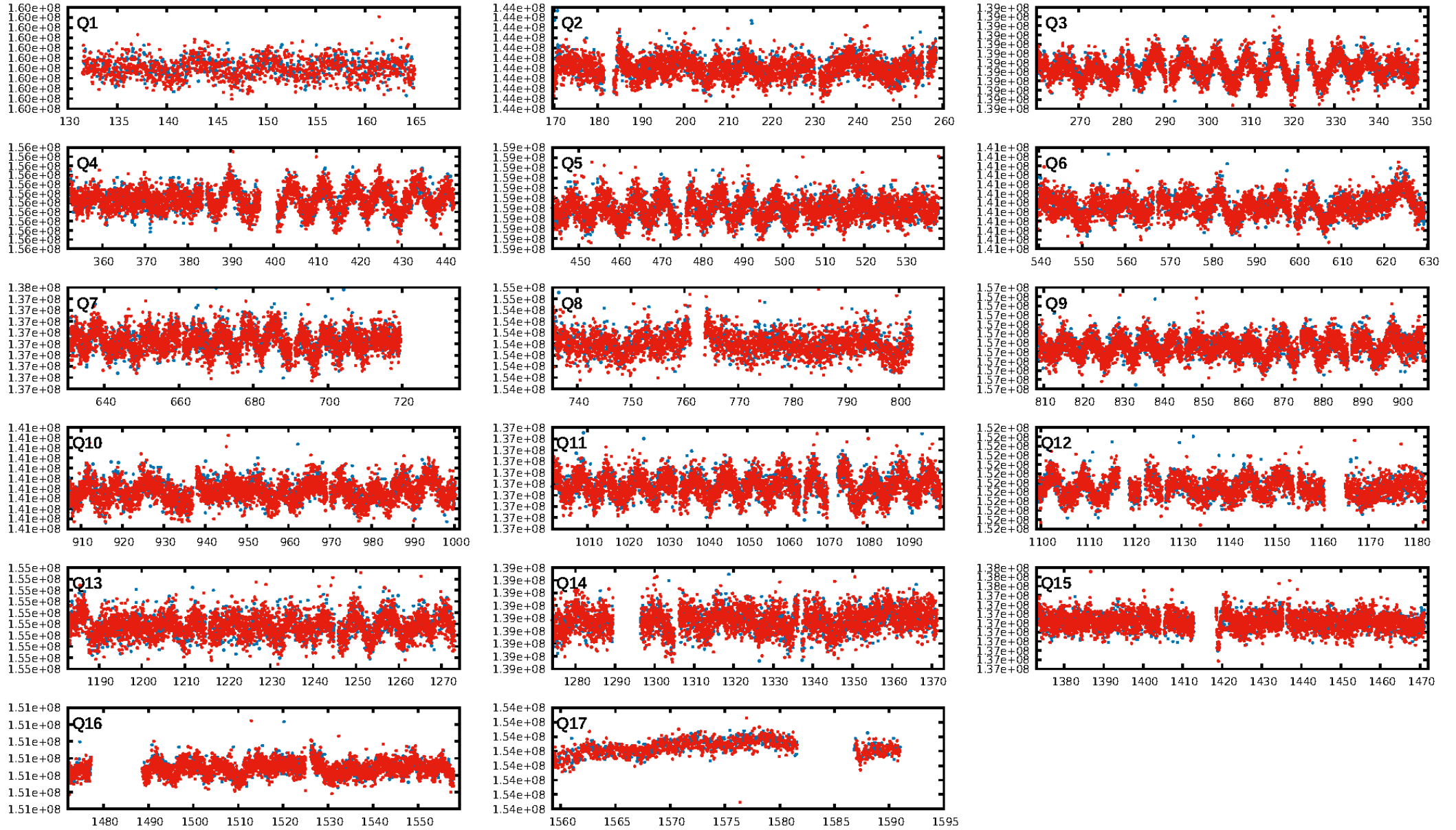
DV Fit Results:

Period = 0.60005 [0.00002] d
Epoch = 132.0425 [0.0083] BKJD
Rp/R* = 0.0026 [0.0026]
a/R* = 1.02 [0.30]
b = 0.89 [1.47]
Seff = 132086.91 [99325.17]
Teq = 4861 [914] K
Rp = 0.93 [1.03] Re
a = 0.0177 [0.0081] AU
Ag = 0.00 [0.55] [-1.81σ]
Teffp = 1708 [88105] K [-0.04σ]

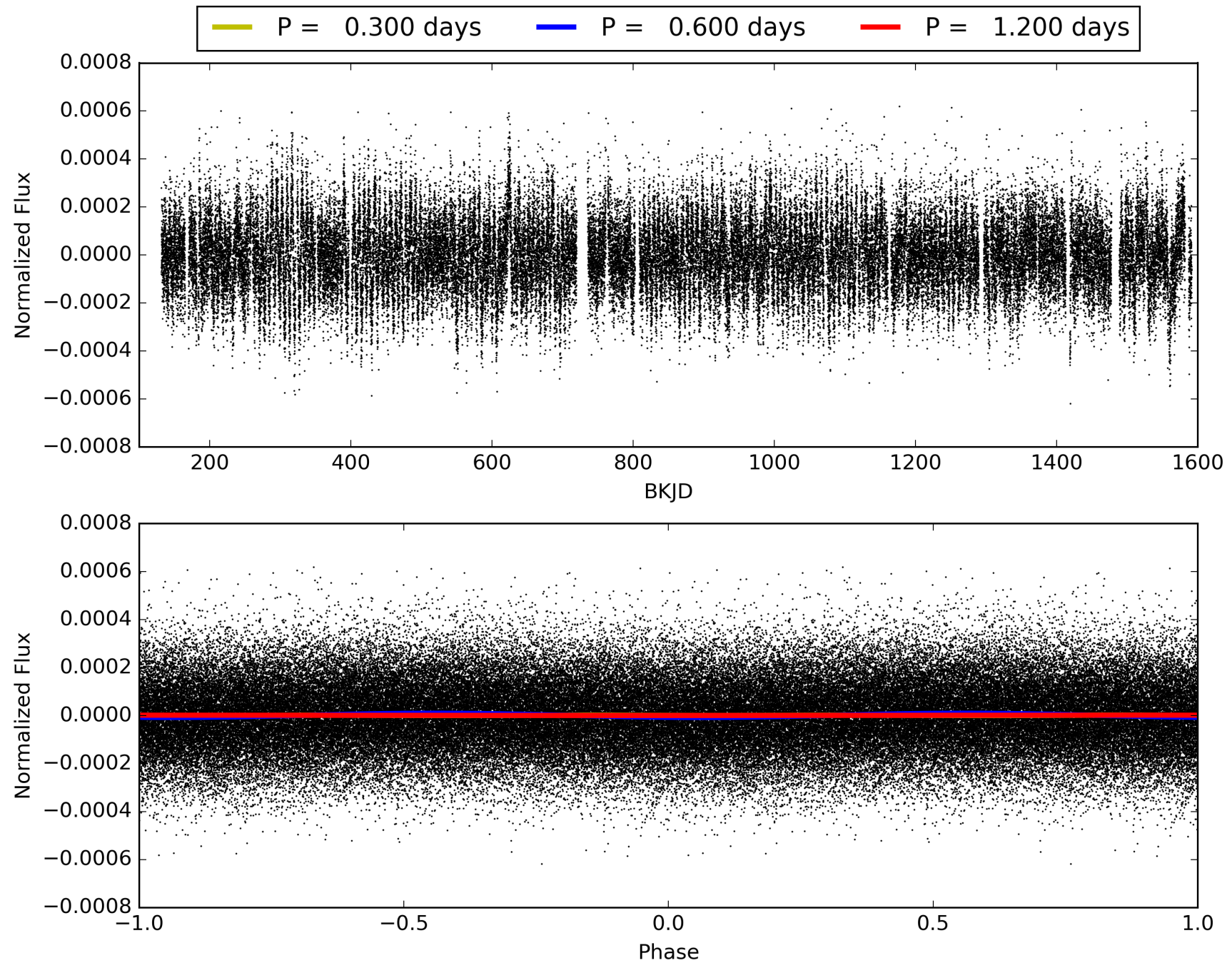
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2139/2146]
GhostDiagnostic-chr: 1.723
Centroid-sig: 0.4%
Centroid-so: 3.846 arcsec [1.95σ]
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 [17/17]

TCE 006550607-01, PDC Light Curves

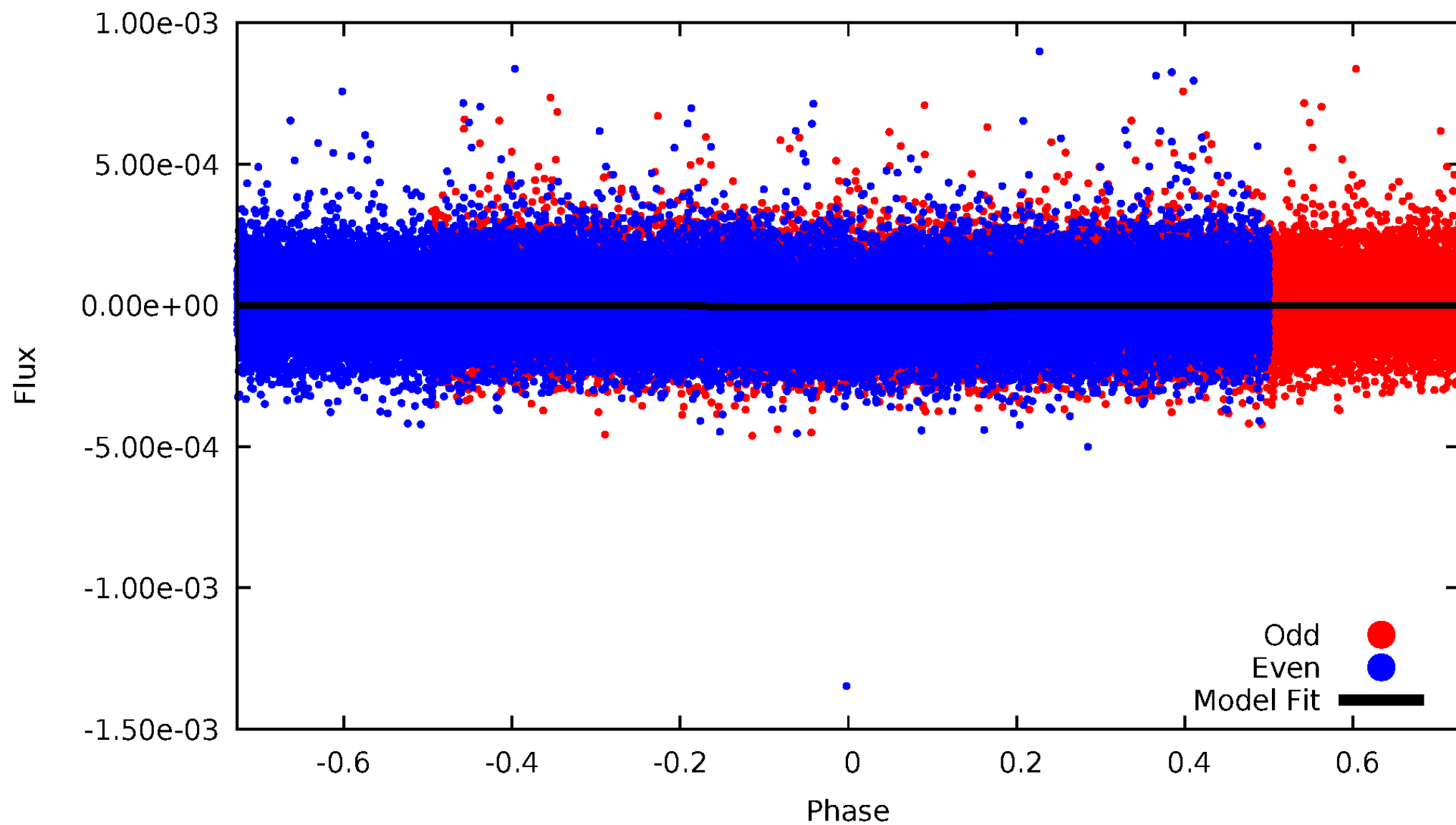


TCE 006550607-01



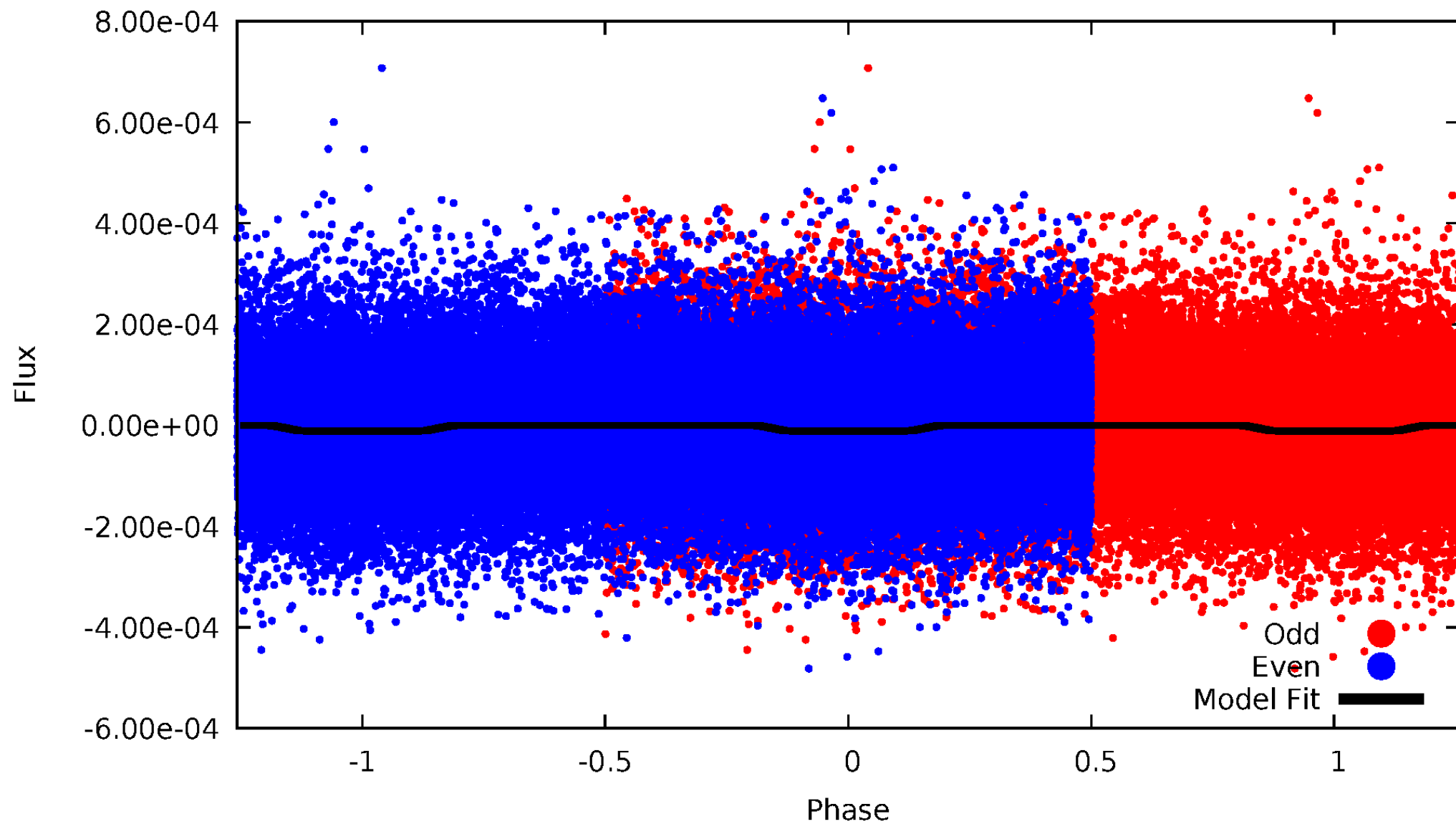
DV Odd/Even

TCE 006550607-01



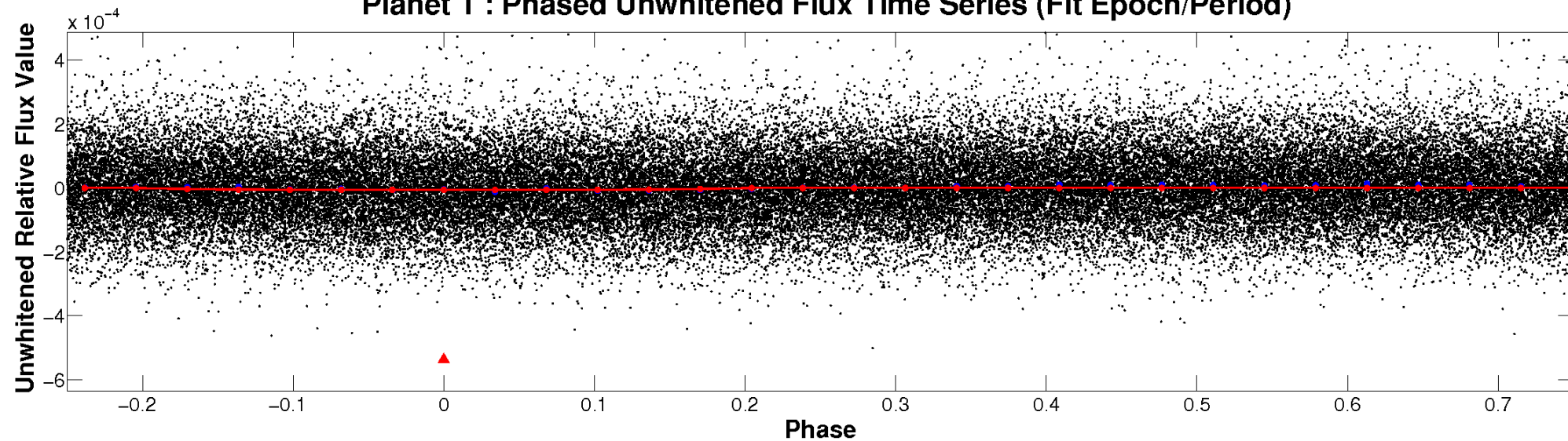
ALT Odd/Even

TCE 006550607-01

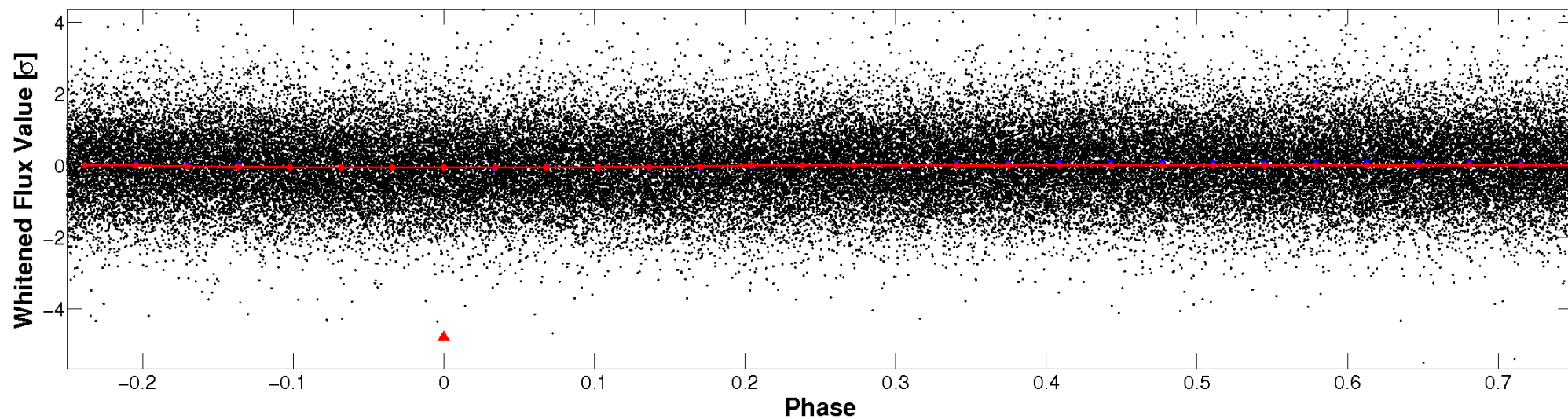


Non-Whitened Vs. Whitened Light Curve

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

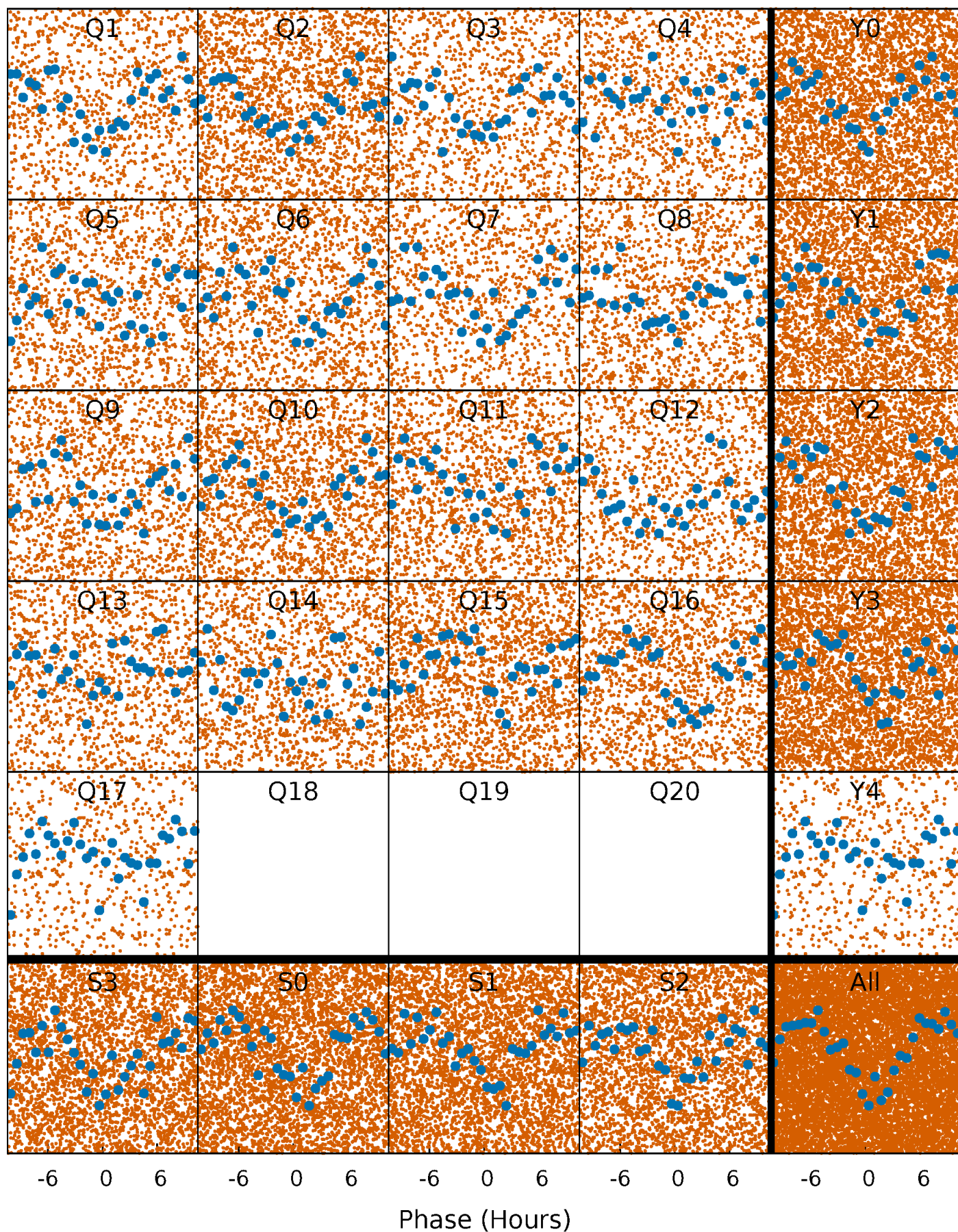


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



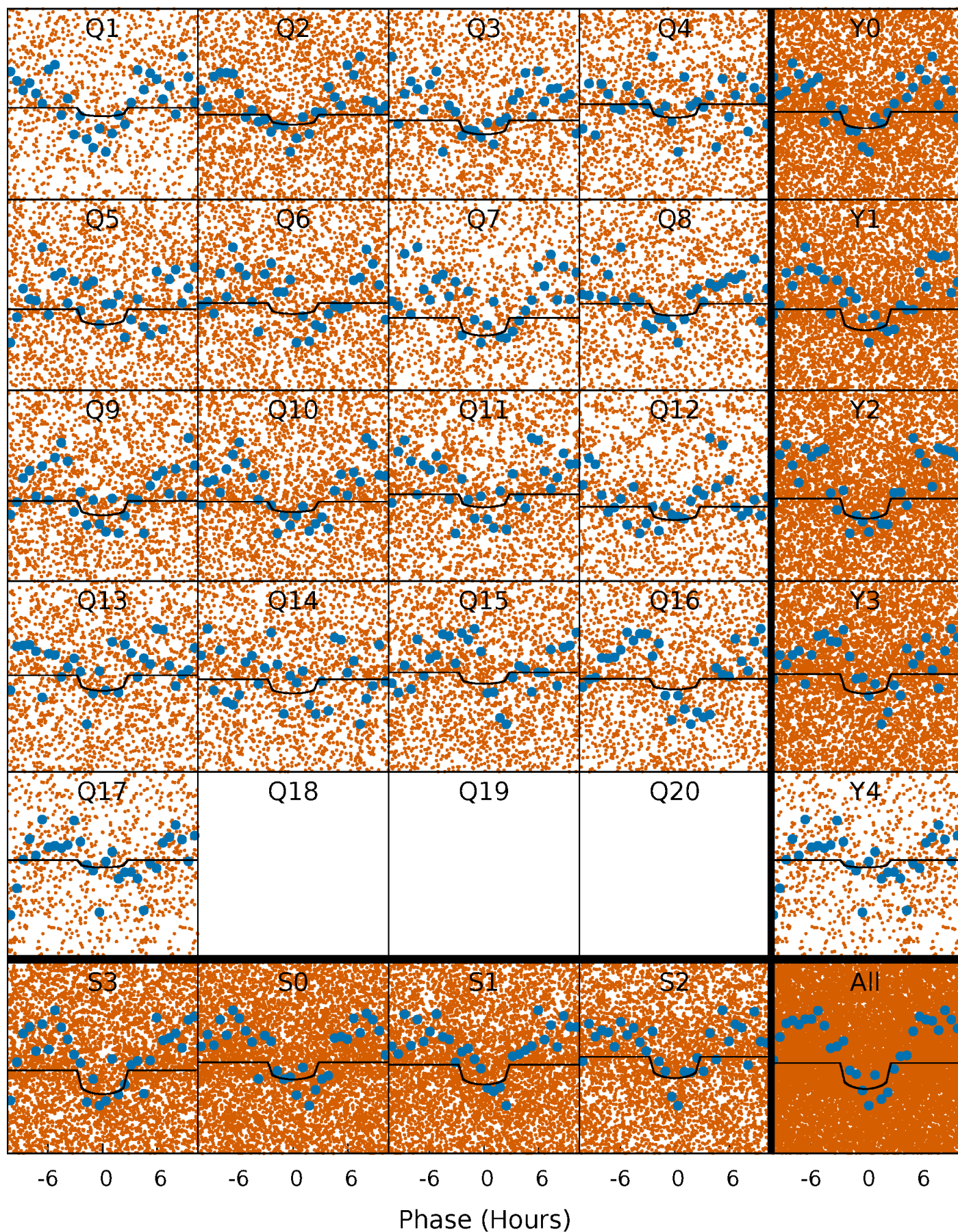
PDC Quarter-Phased Transit Curves

TCE 006550607-01 P= 0.600053 Days $T_0=132.042494$ (BKJD)



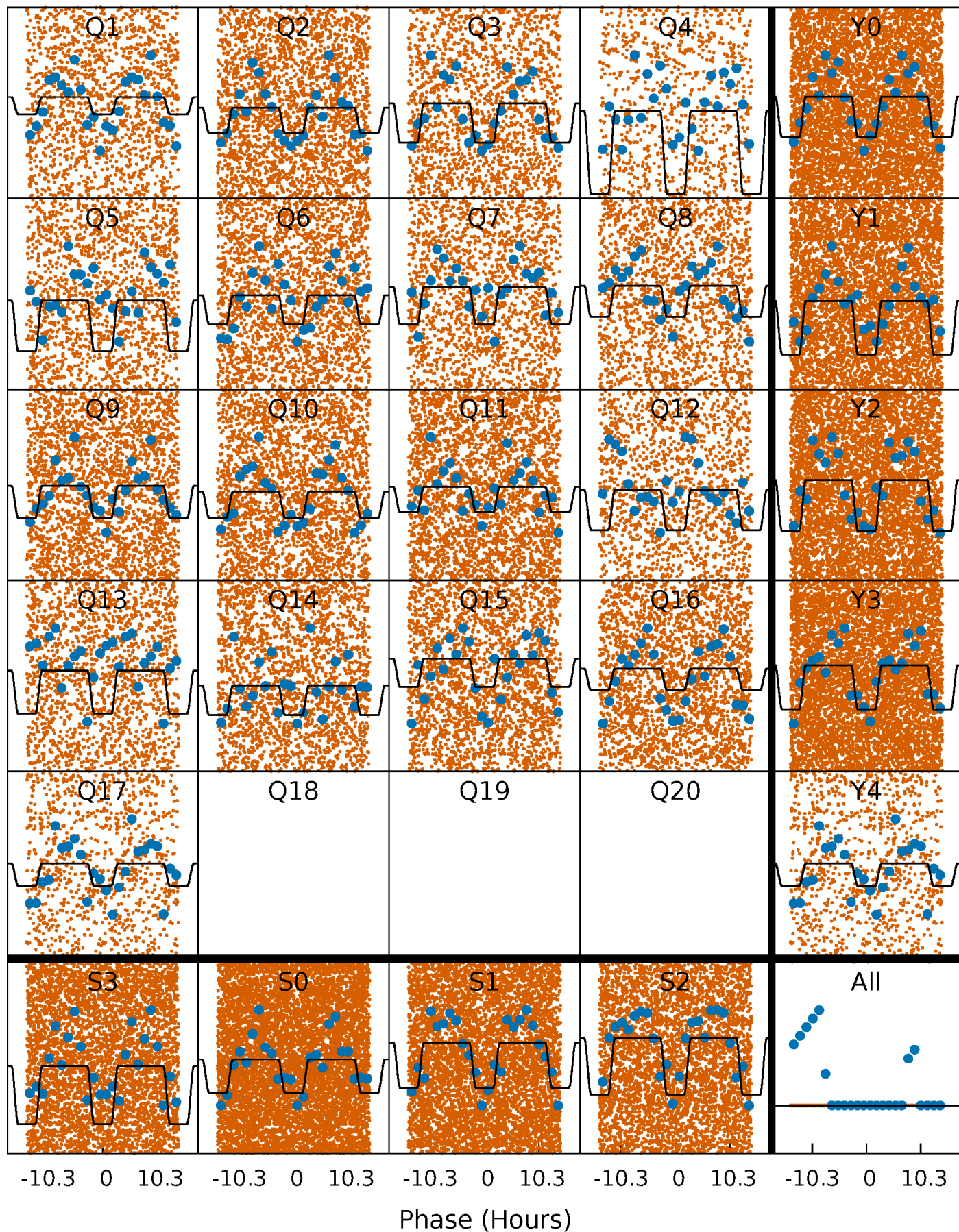
DV Quarter-Phased Transit Curves

TCE 006550607-01 P= 0.600053 Days $T_0=132.042494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

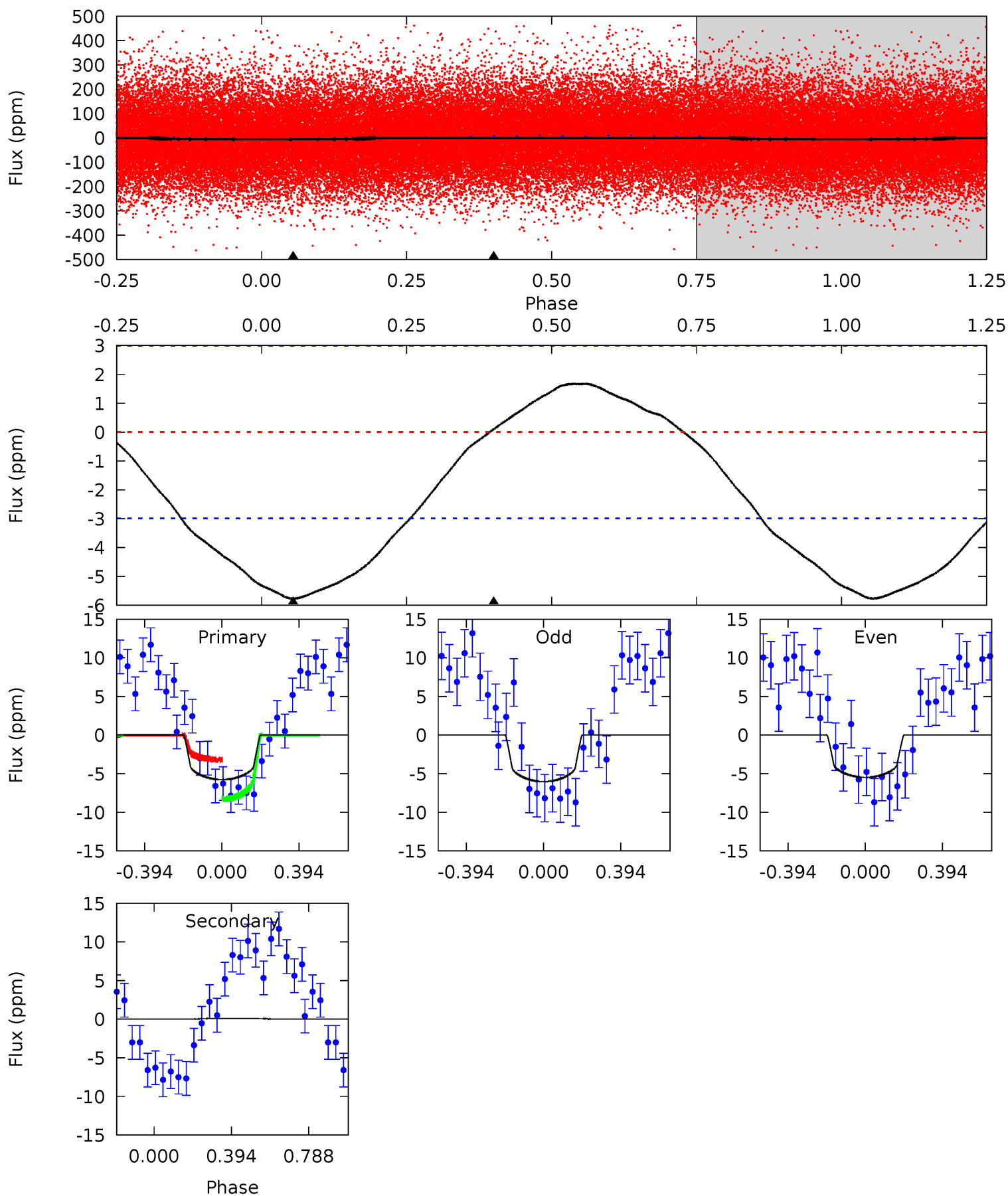
TCE 006550607-01 P= 0.600098 Days $T_0=132.023526$ (BKJD)



DV Model-Shift Uniqueness Test

006550607-01, P = 0.600053 Days, E = 131.442441 Days

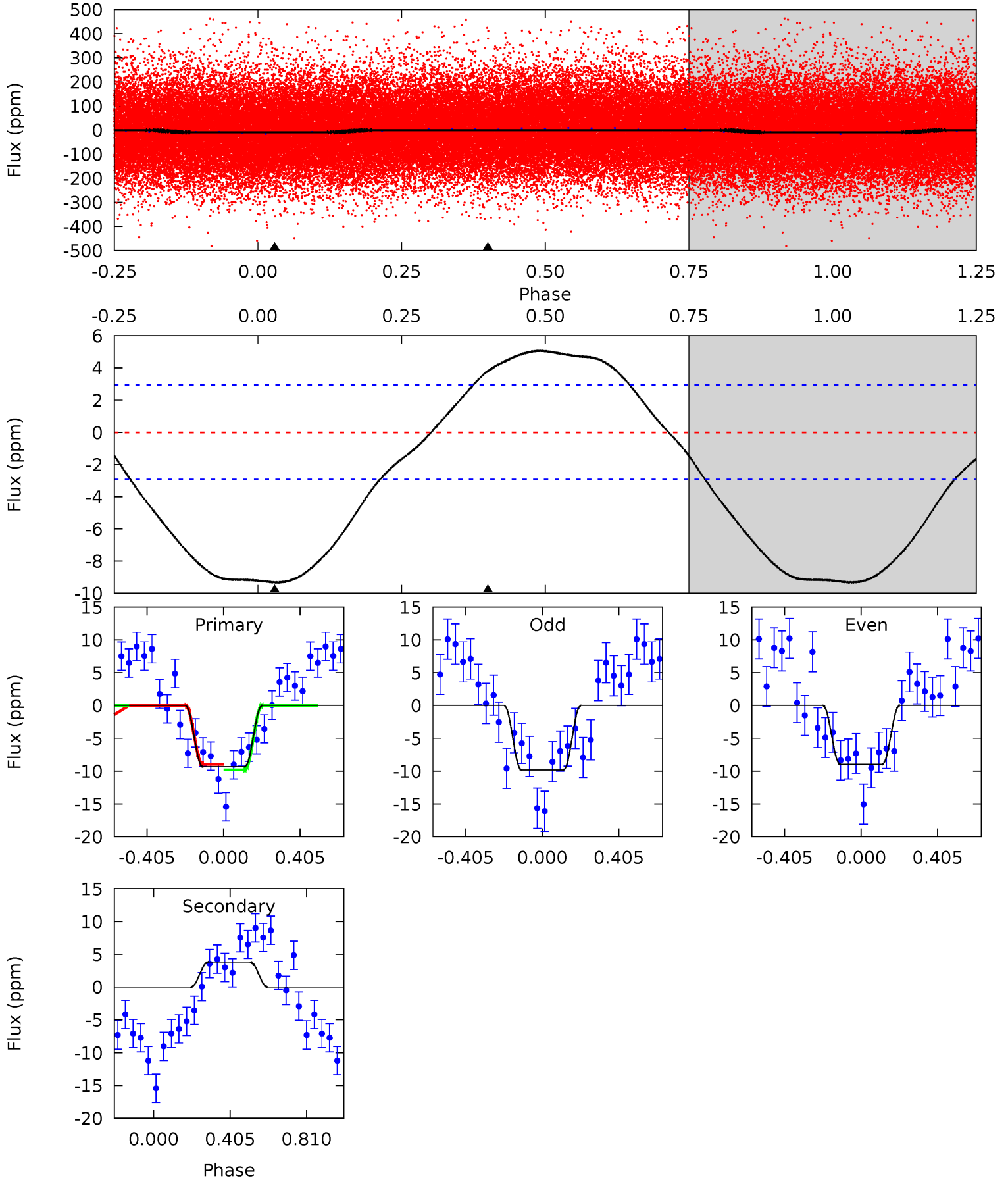
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.23	-0.14	0	0	4.27	0.85	0.67	8.23	8.23	-0.14	-0.14	0.39	0.83	0.23	3.66



Alt Model-Shift Uniqueness Test

006550607-01, P = 0.600098 Days, E = 131.423428 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	-5.53	0	0	4.26	0.83	1.81	13.6	13.6	-5.53	-5.53	0.61	1.08	0.35	0.58



Stellar Parameters For KIC 006550607

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8040^{+223}_{-334}	$3.707^{+0.432}_{-0.108}$	$-0.080^{+0.200}_{-0.350}$	$3.325^{+0.841}_{-1.562}$	$2.053^{+0.346}_{-0.476}$	$0.079^{+0.313}_{-0.028}$
	+3%/-4%	+12%/-3%	+250%/-438%	+25%/-47%	+17%/-23%	+398%/-35%
Source	KIC0	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 006550607-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1	$1.02^{+0.88}_{-0.67}$	6541^{+557}_{-748}	-5315^{+1067}_{-682}	$-0.007^{+0.157}_{-0.197}$
Alt.	4 ± 1	$1.26^{+0.97}_{-0.73}$	6585^{+482}_{-783}	-6464^{+731}_{-2845}	$-0.408^{+0.277}_{-1.914}$

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

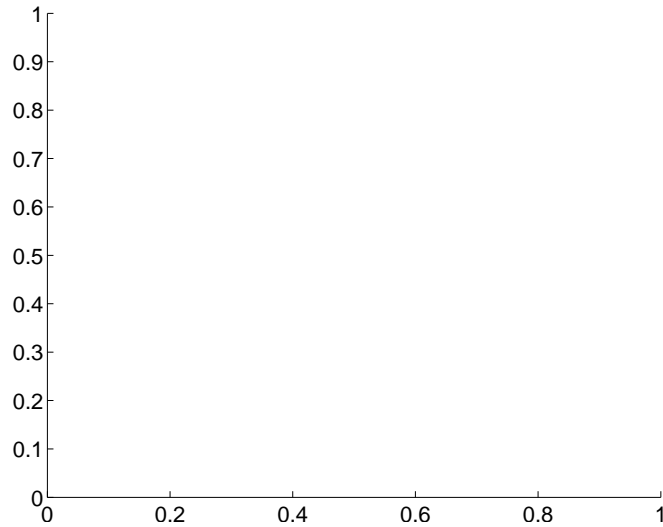
Supplemental centroid analysis for 006550607-01. Kepler magnitude: 12.95. Transit SNR 6.42

There are 0 quarters with good PRF difference image offsets

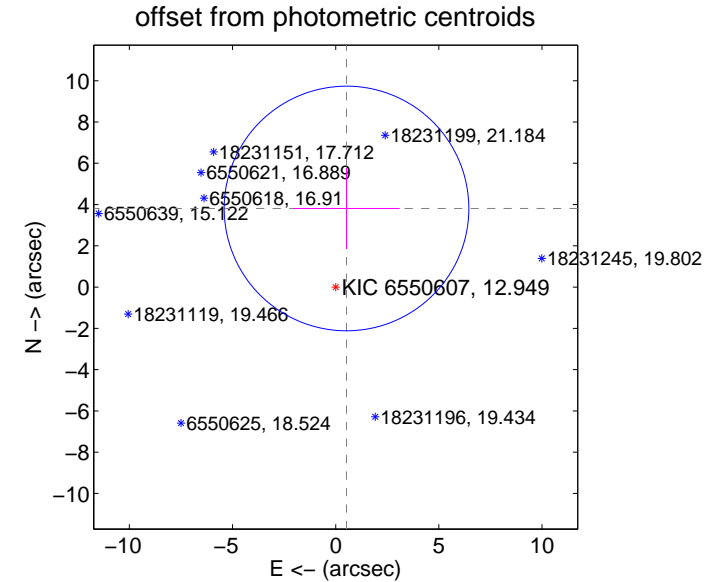
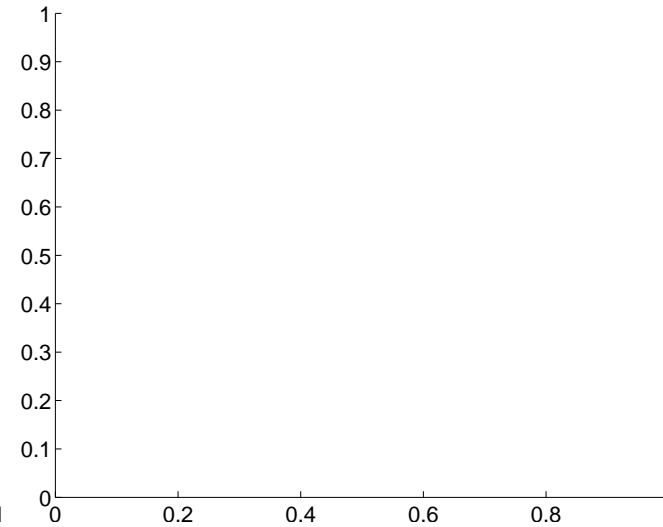
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.85 ± 1.98	1.95	-0.52 ± 2.58	3.81 ± 1.96

There is no PRF-fit offset from OOT-fit

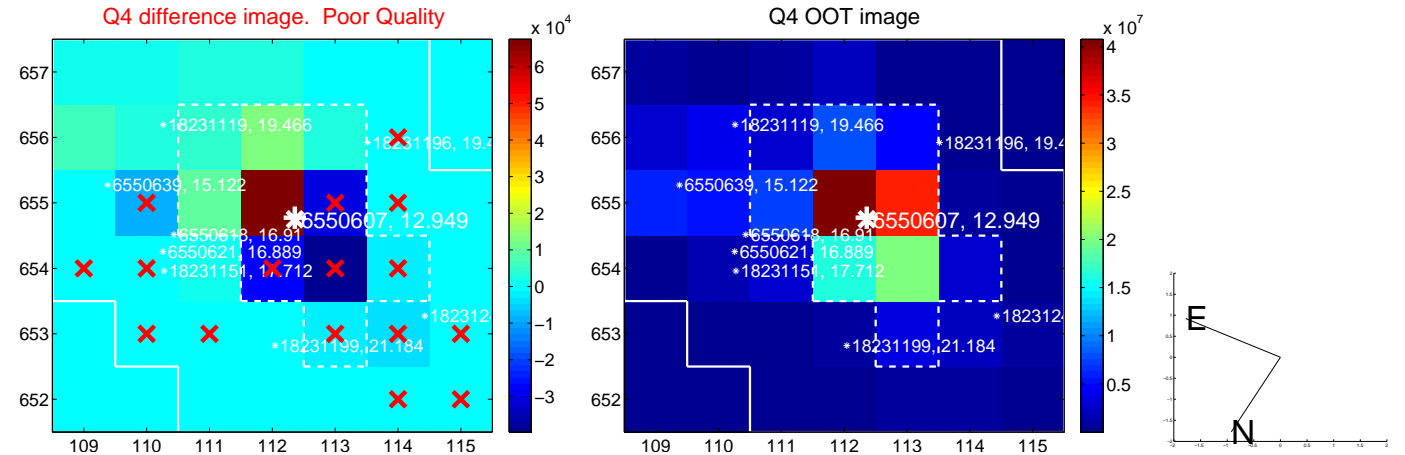
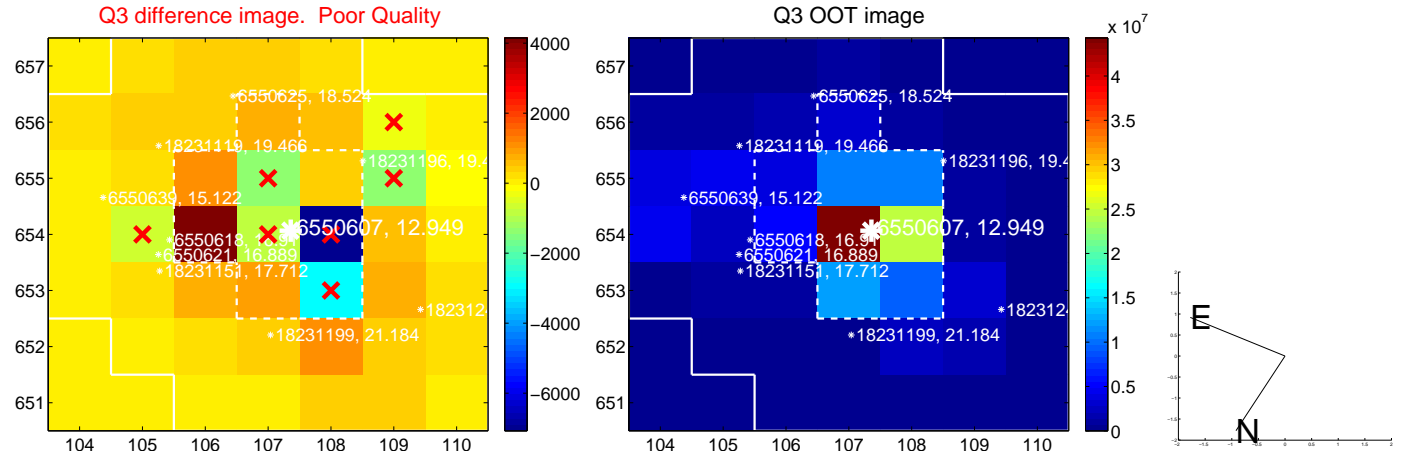
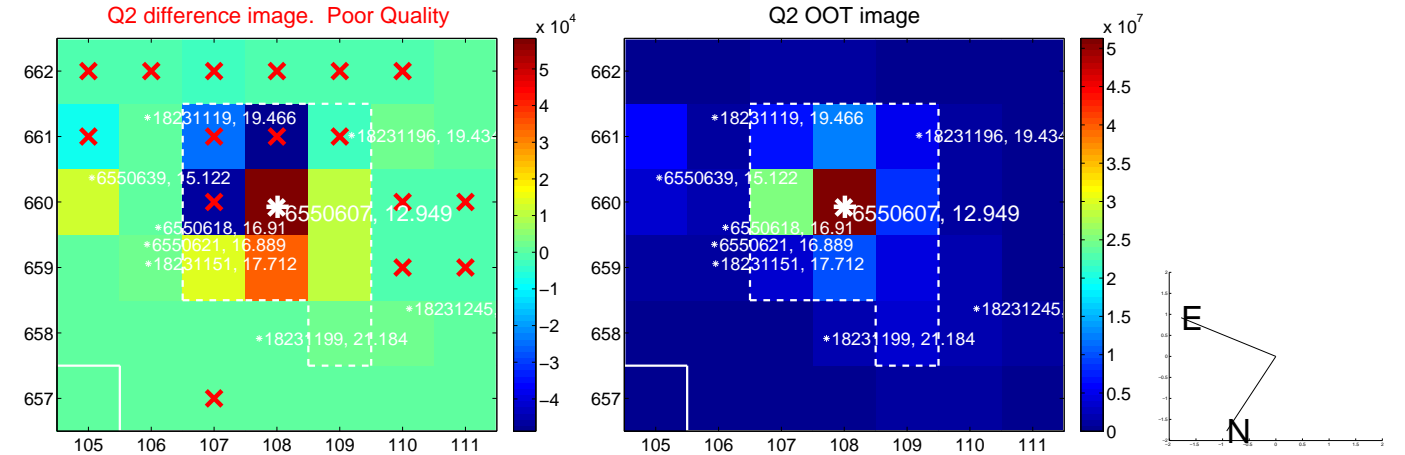
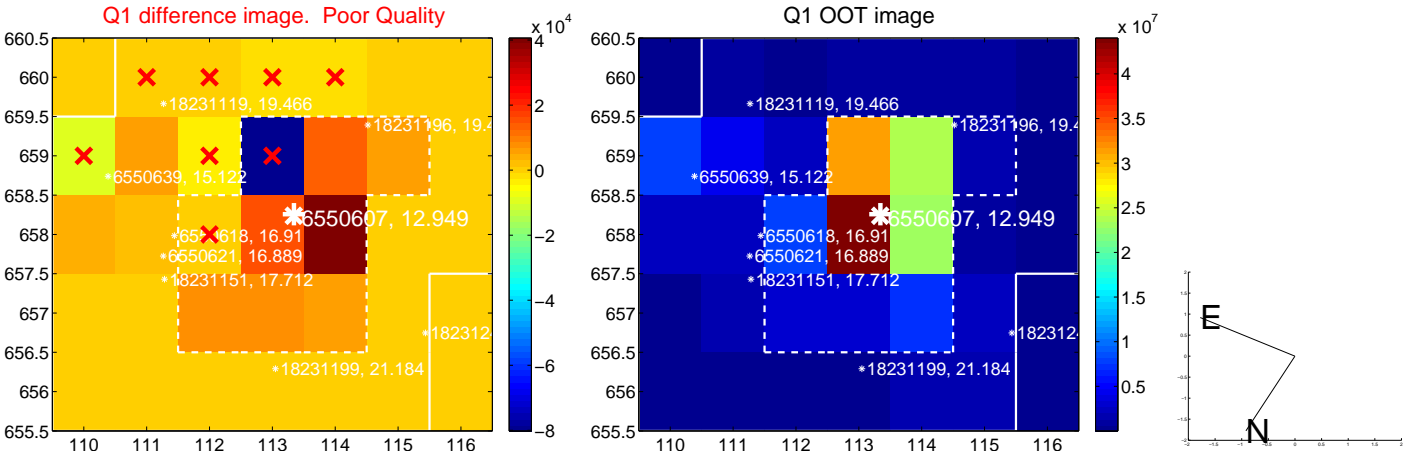


There is no PRF-fit offset from KIC

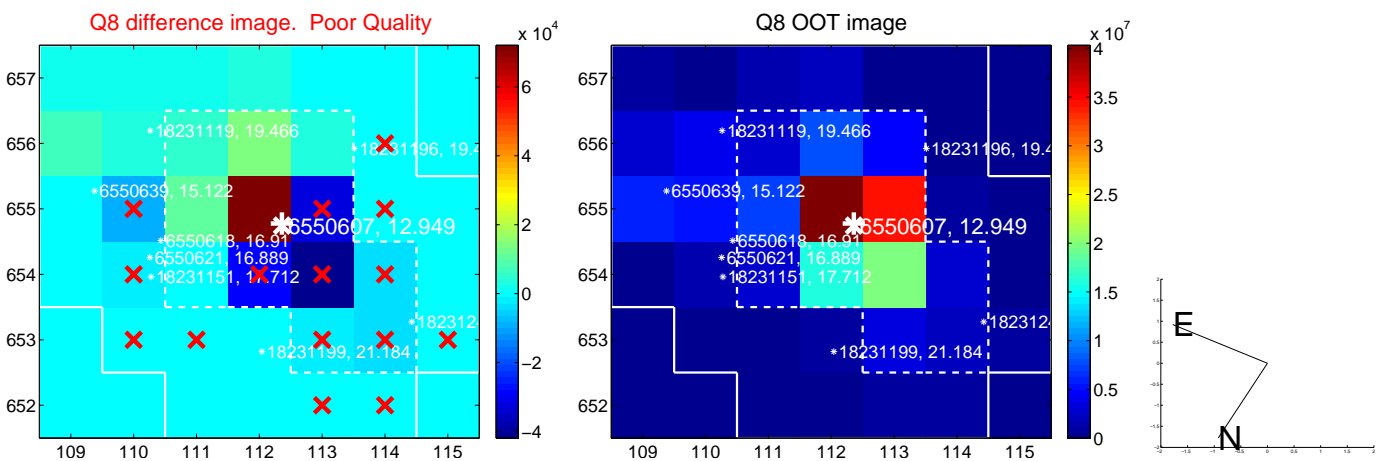
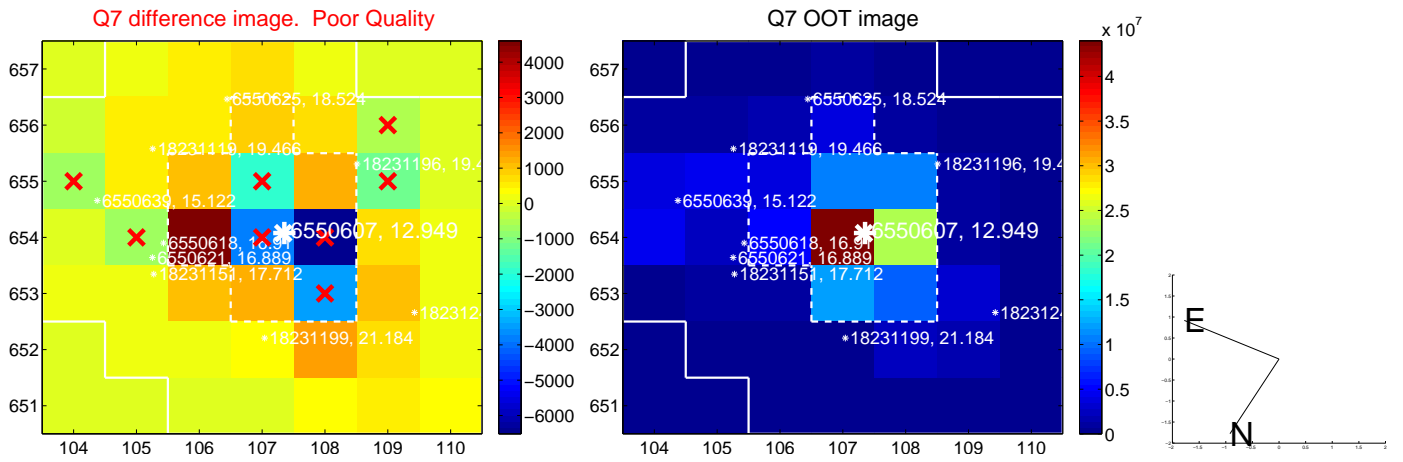
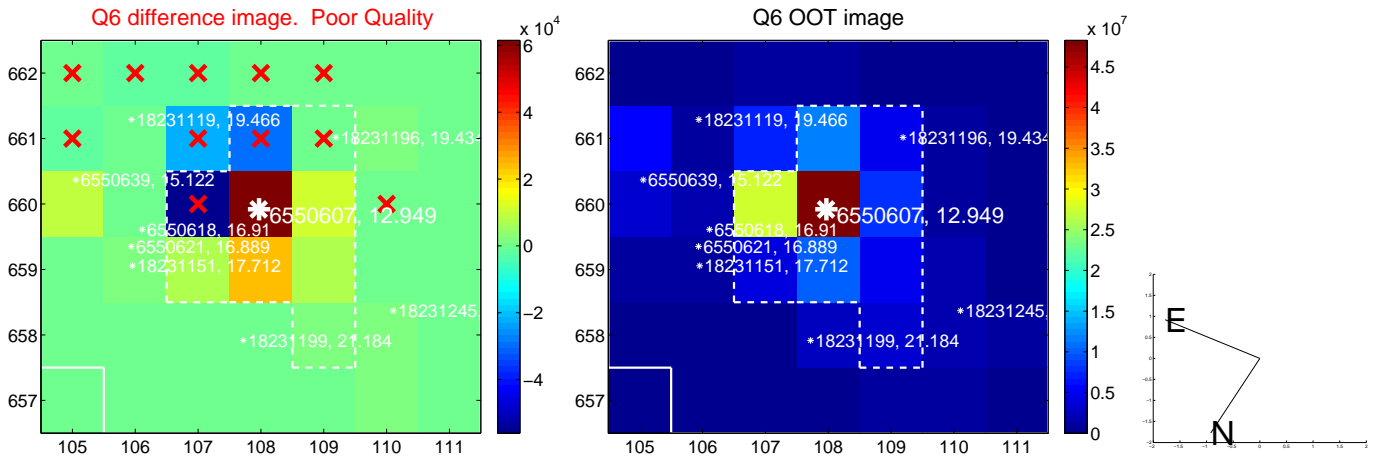
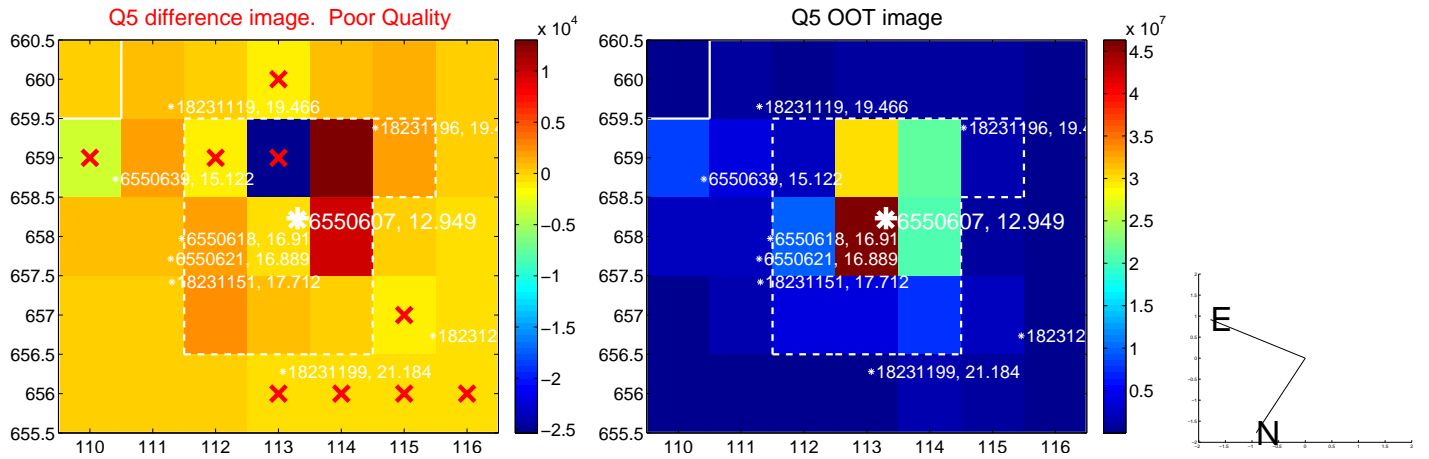


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

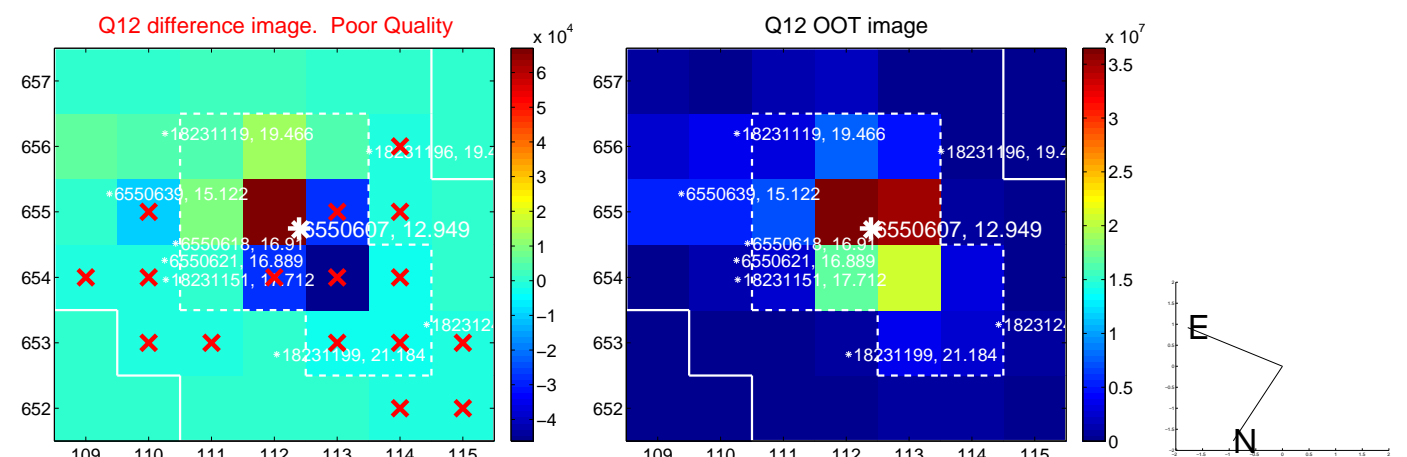
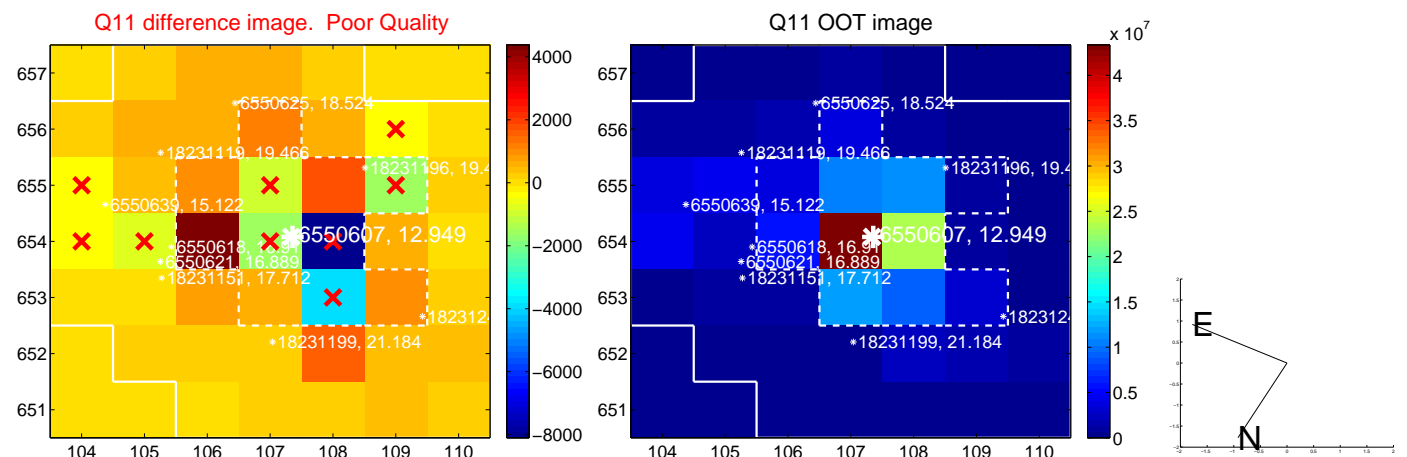
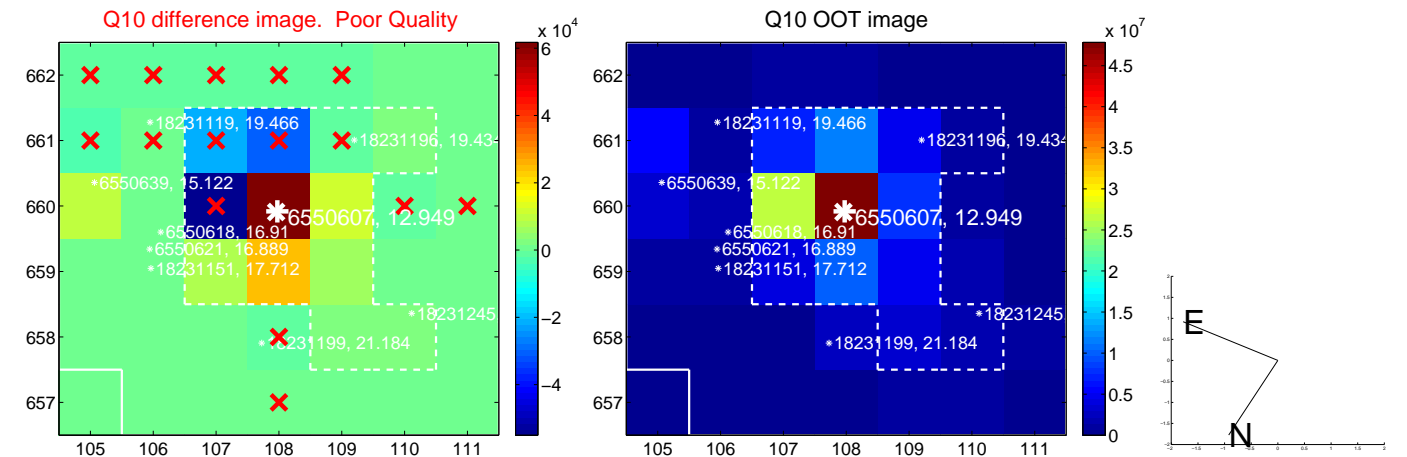
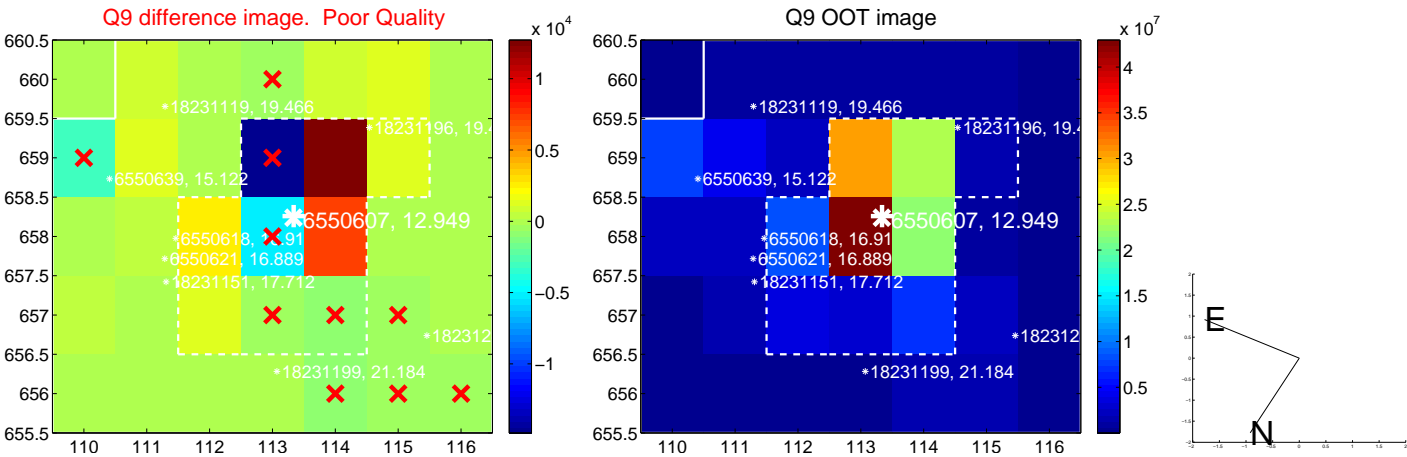
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



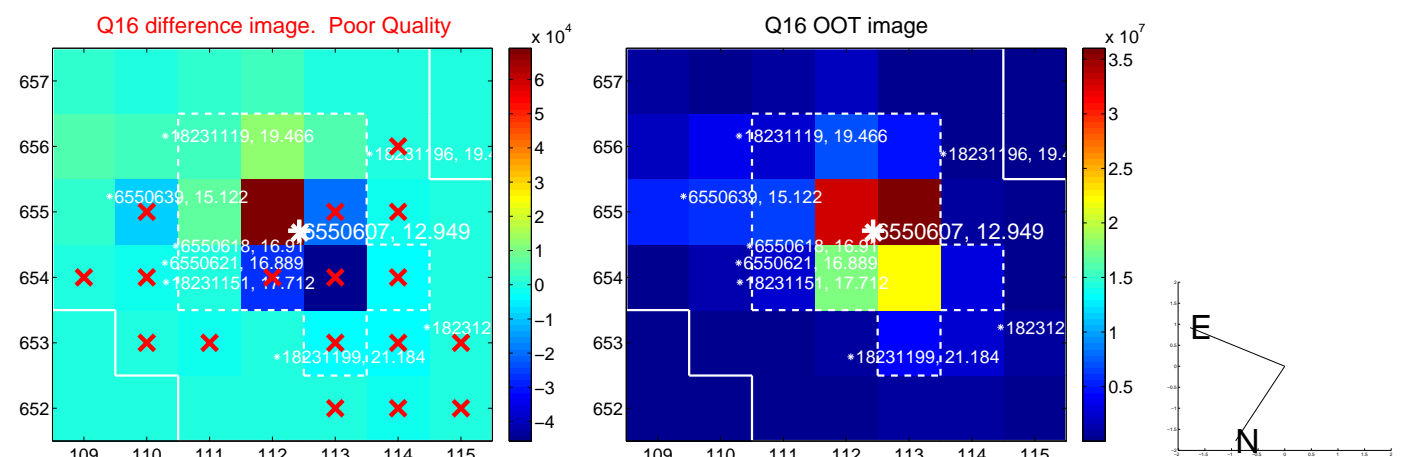
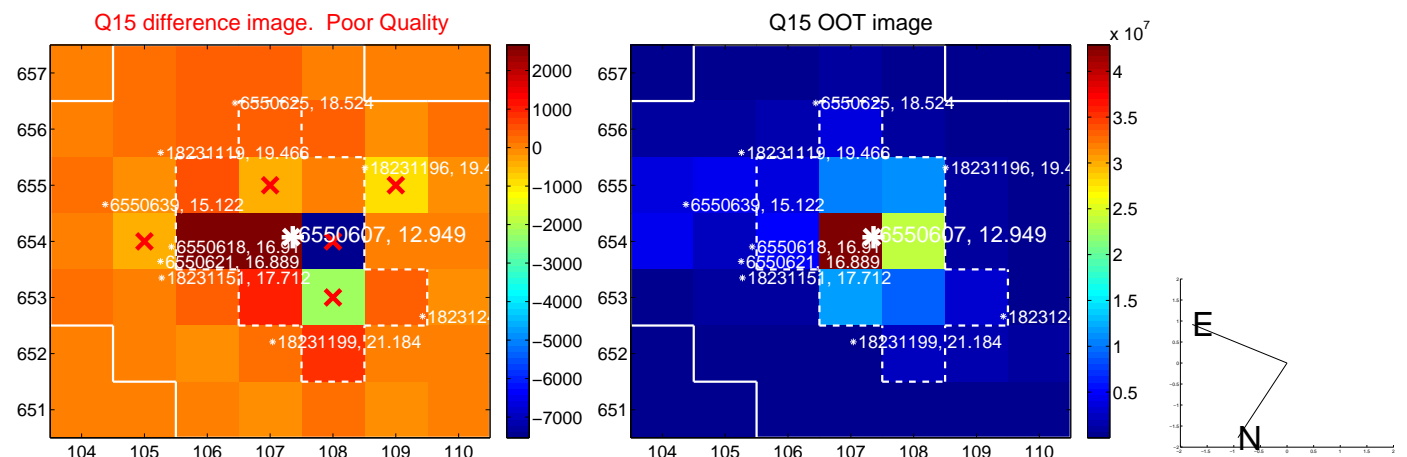
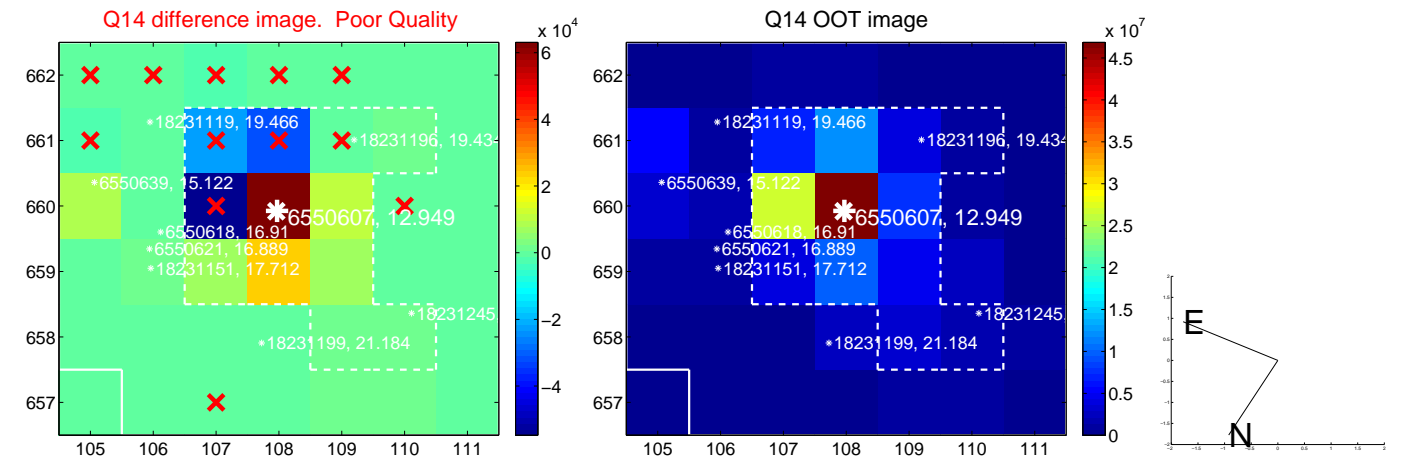
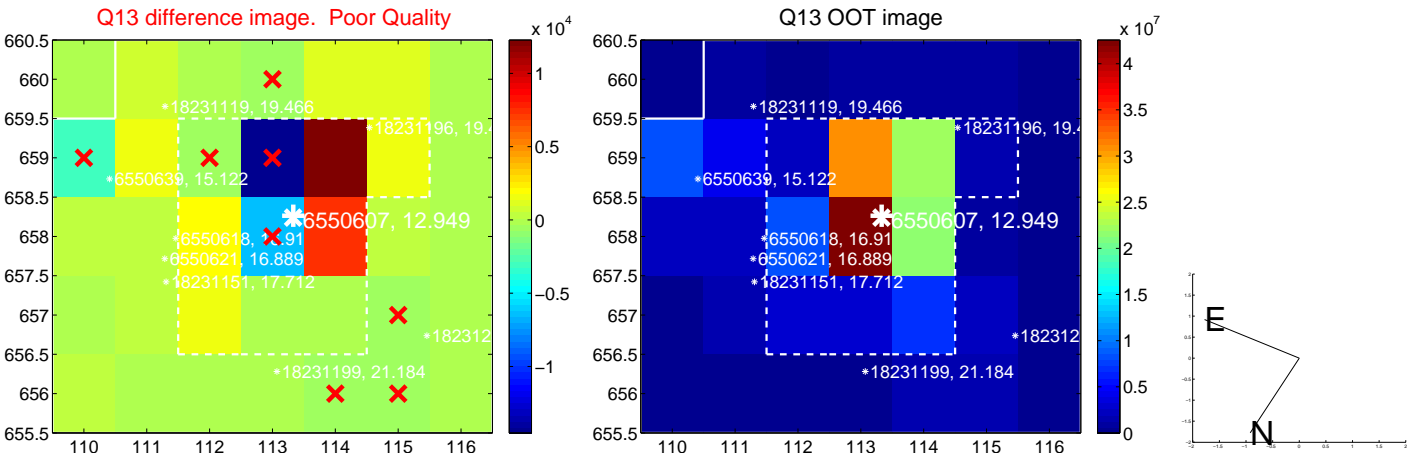
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



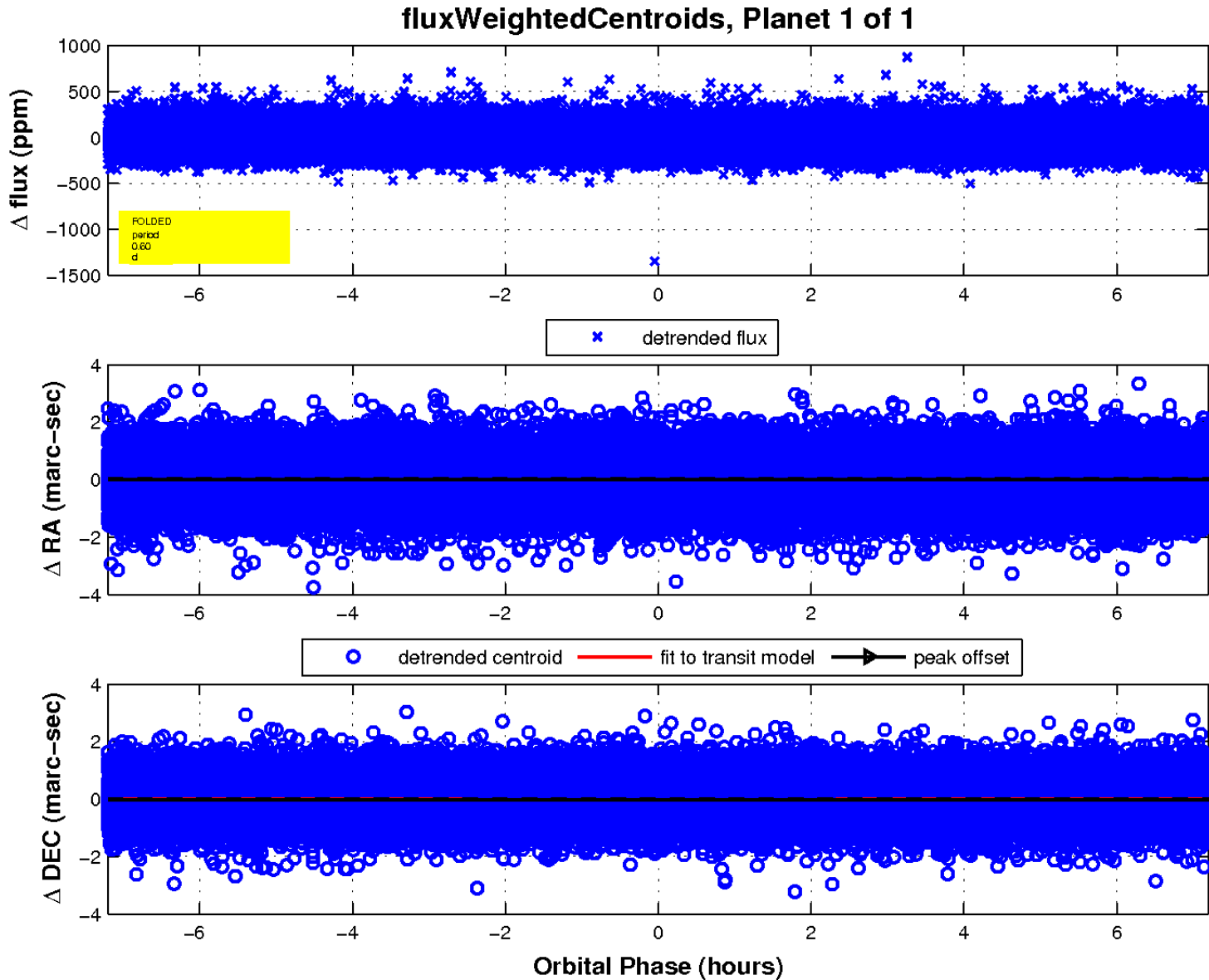
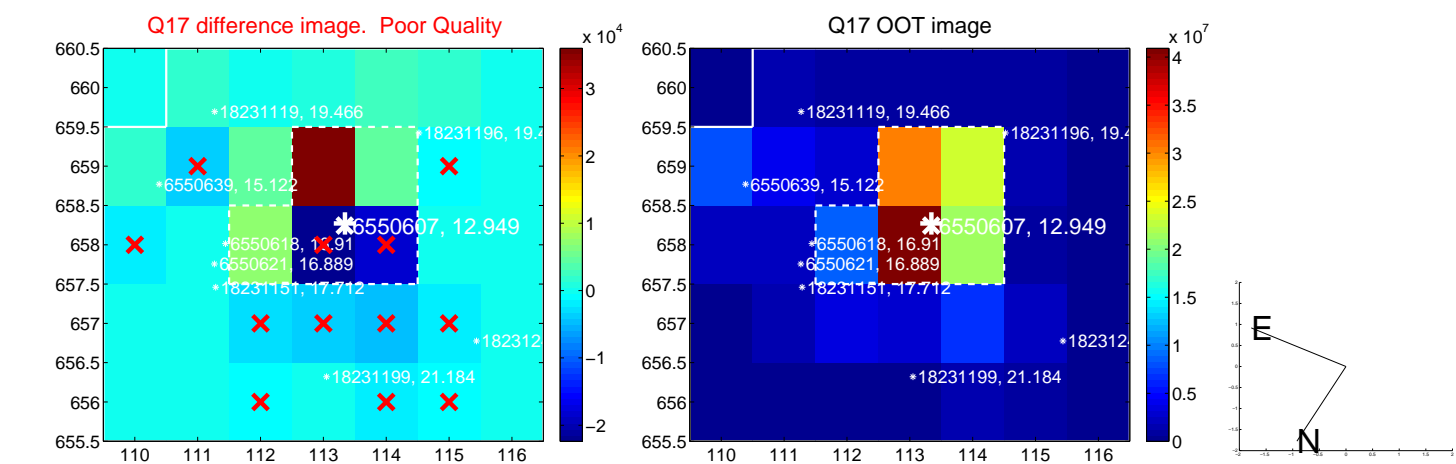
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

