

KIC 005607145

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})
005607145-01	OBS	No	0.981426	132.357508	137.5	3.537	9.6	10.2	0.57	4809	0.80	601.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005607145-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

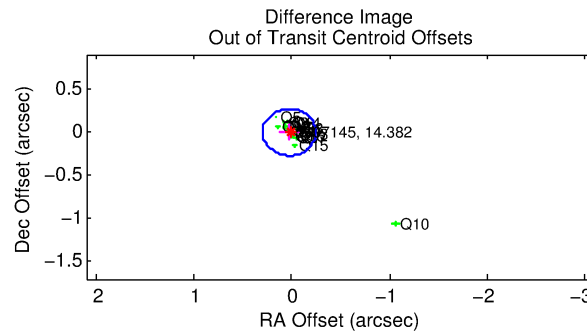
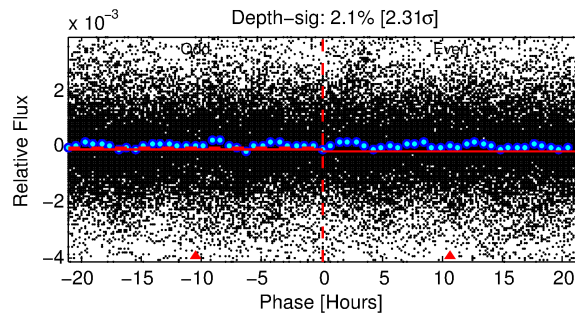
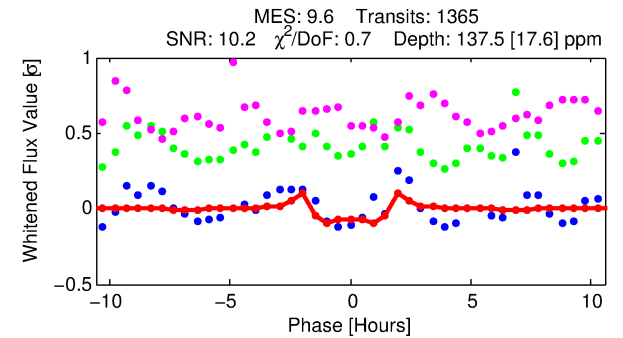
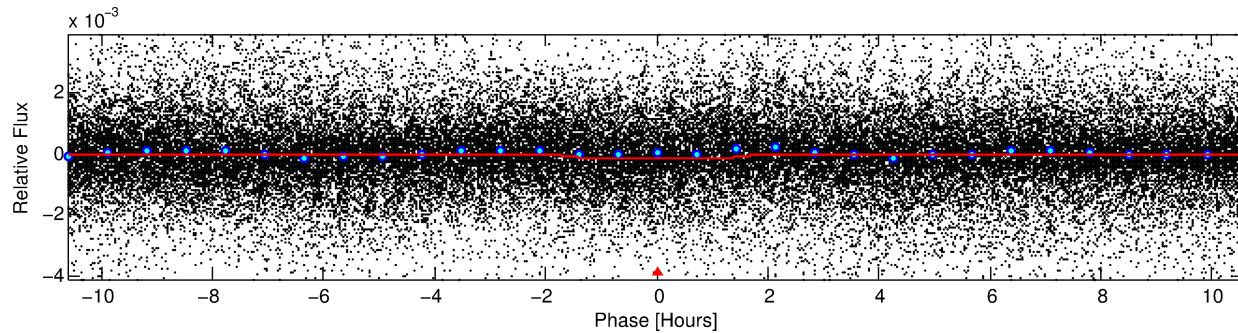
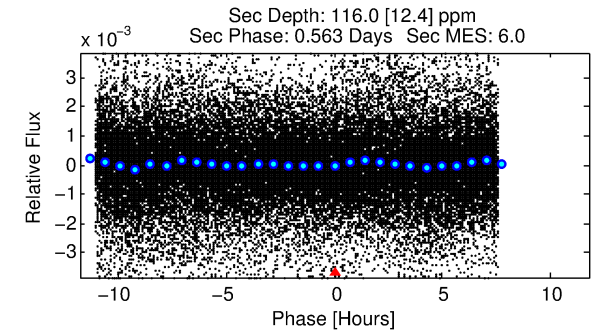
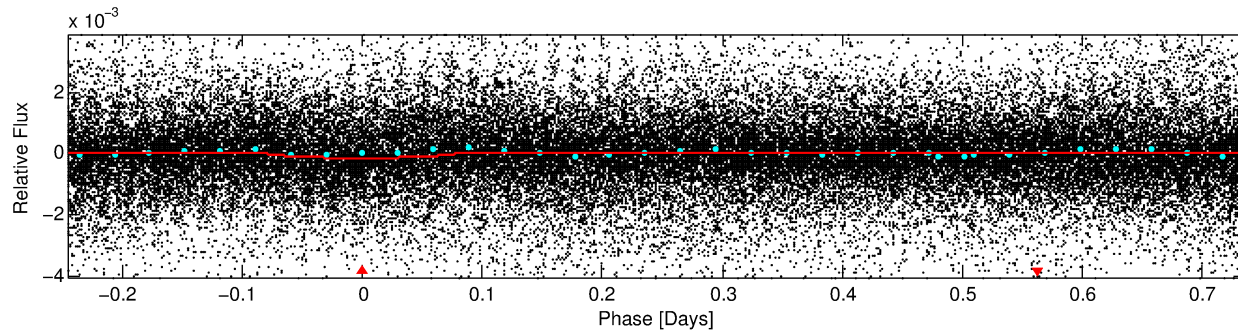
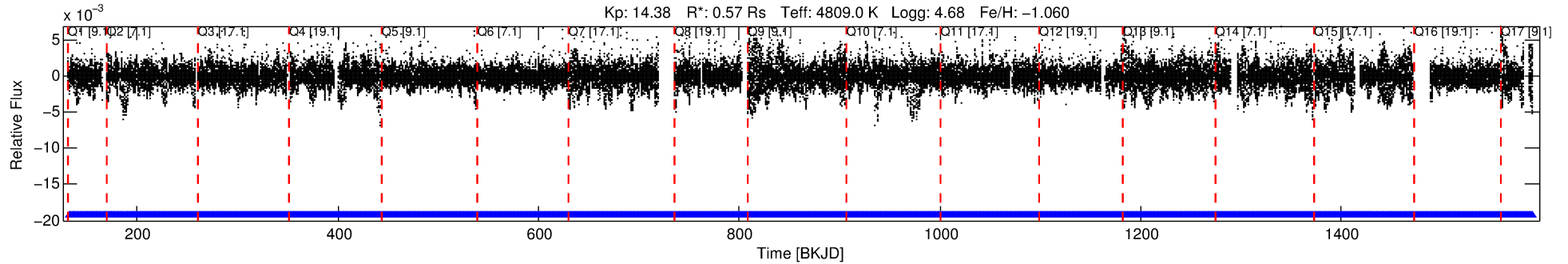
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005607145-01

No Significant Match Found

DV One-Page Summary

KIC: 5607145 Candidate: 1 of 1 Period: 0.981 d



DV Fit Results:

Period = 0.98143 [0.00001] d
Epoch = 132.3575 [0.0015] BKJD
Rp/R* = 0.0130 [0.0027]
a/R* = 1.36 [0.50]
b = 0.90 [0.17]
Seff = 601.21 [93.01]
Teq = 1263 [49] K
Rp = 0.80 [0.18] Re
a = 0.0160 [0.0010] AU
Ag = 25.36 [11.18] [2.18σ]
Teffp = 4381 [492] K [6.31σ]

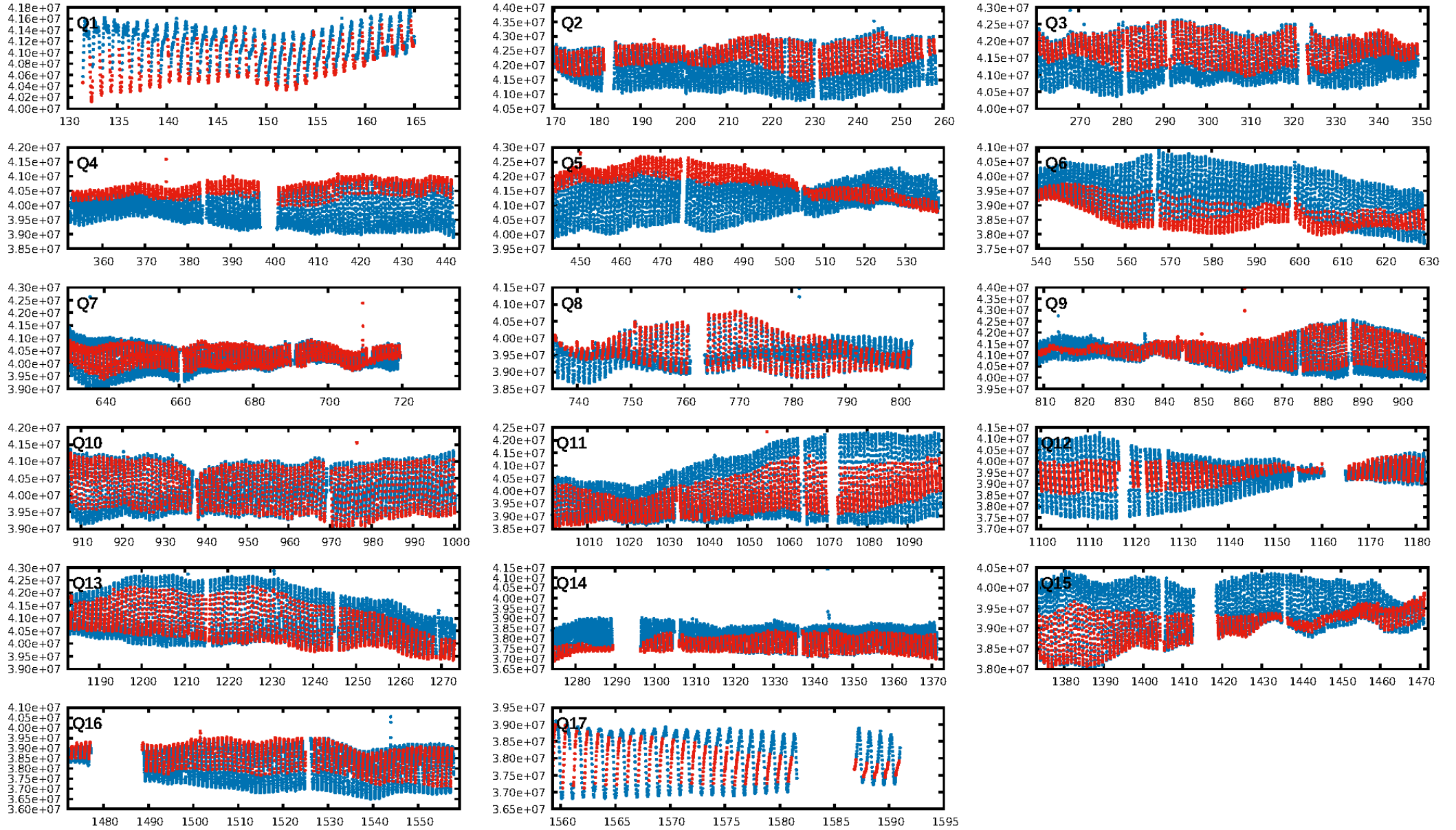
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.27e-20
RollingBand-fgt: 1.00 [1303/1303]
GhostDiagnostic-chr: 0.9957
Centroid-sig: 0.1%
Centroid-so: 0.592 arcsec [1.95σ]
OotOffset-rm: 0.027 arcsec [0.30σ]
KicOffset-rm: 0.132 arcsec [1.22σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 1.00 [17/17]

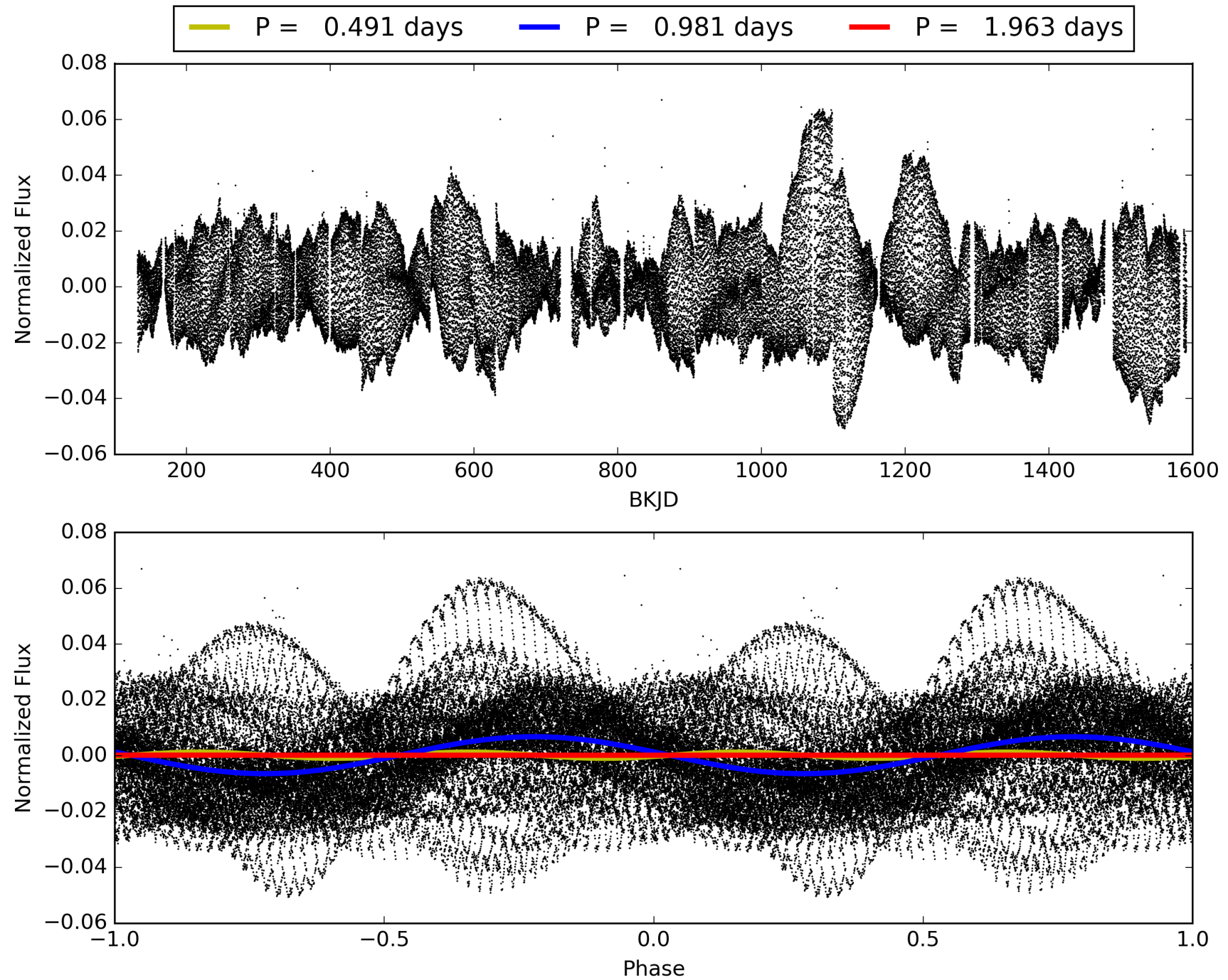
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:55:01 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005607145-01, PDC Light Curves

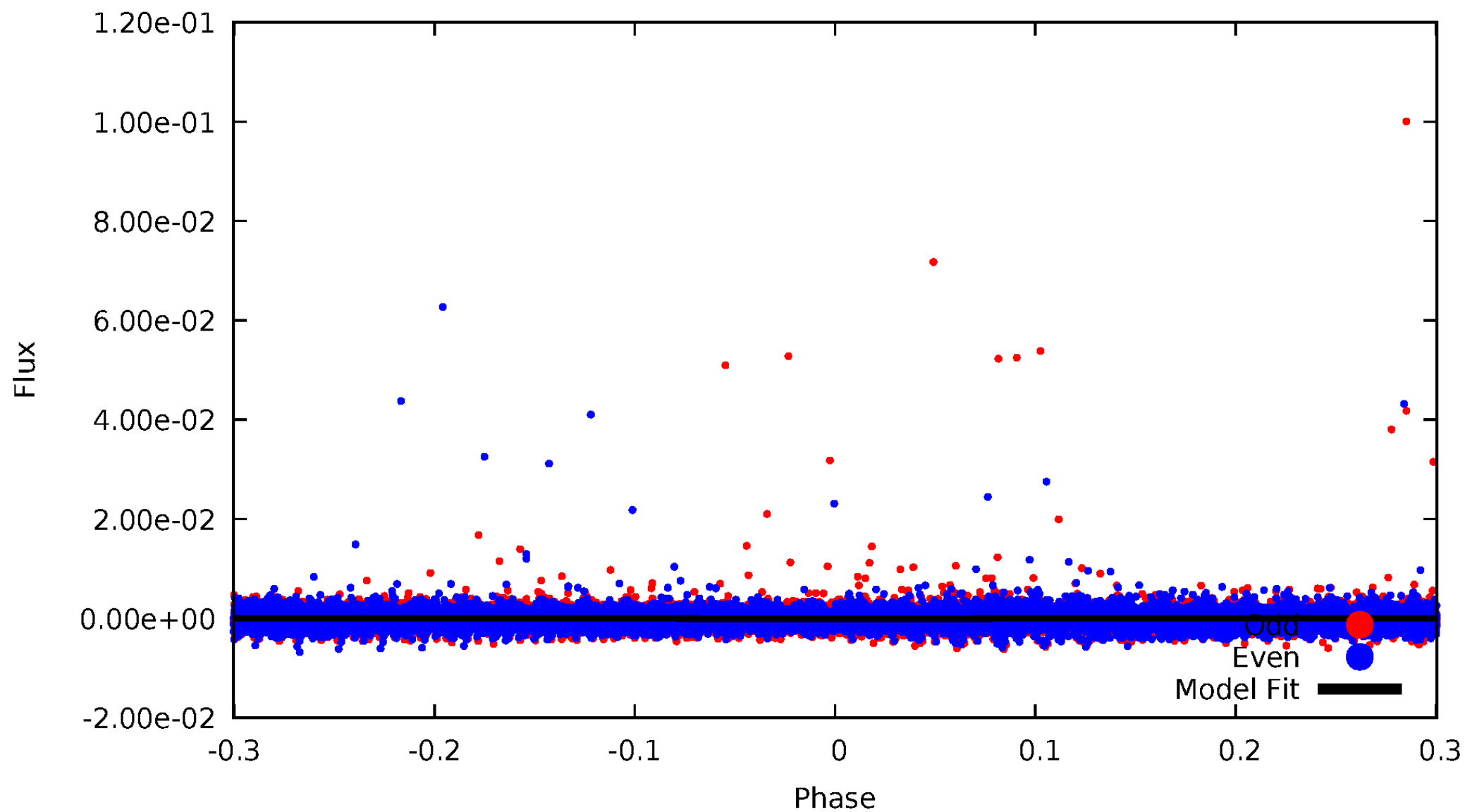


TCE 005607145-01



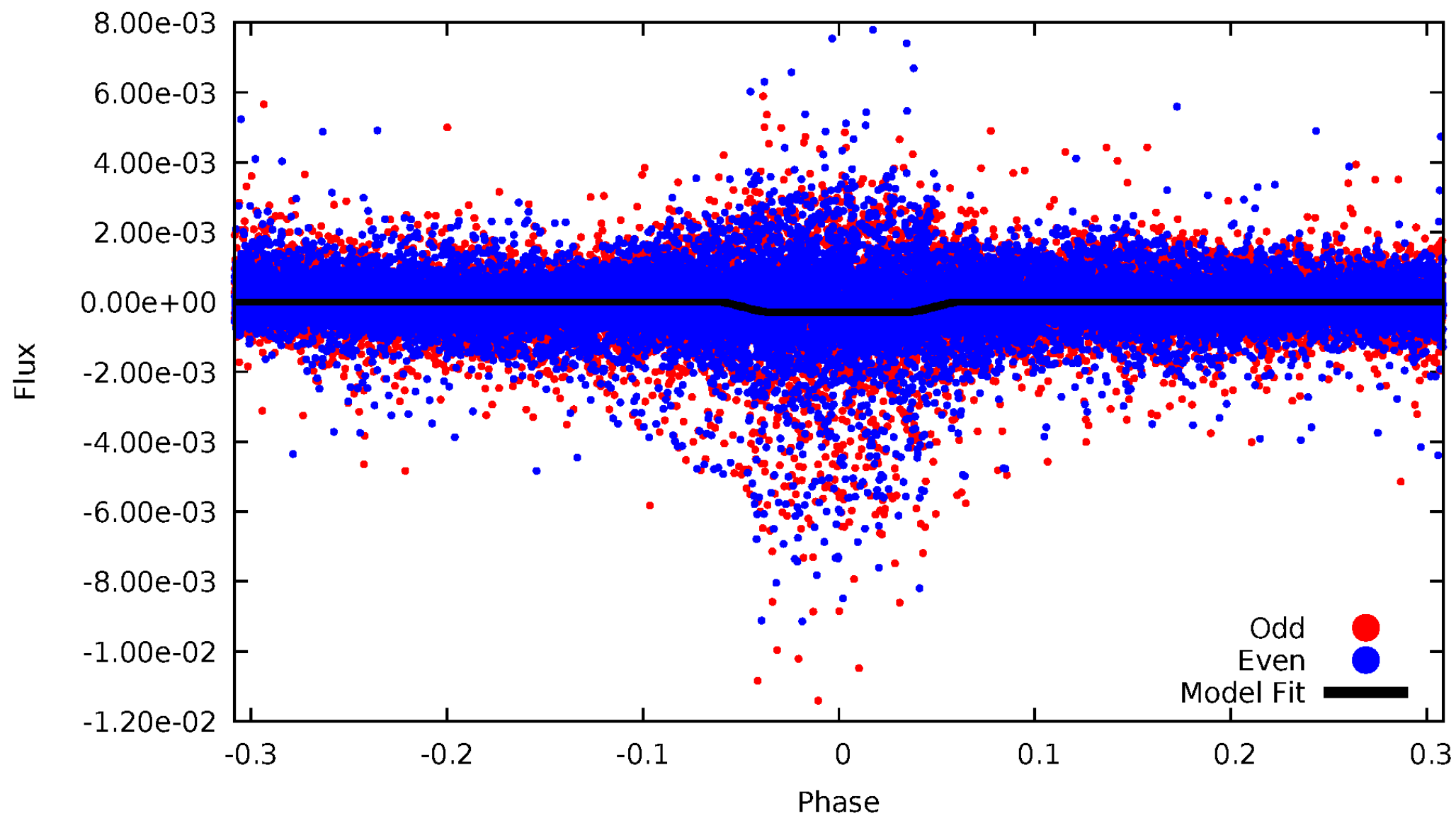
DV Odd/Even

TCE 005607145-01



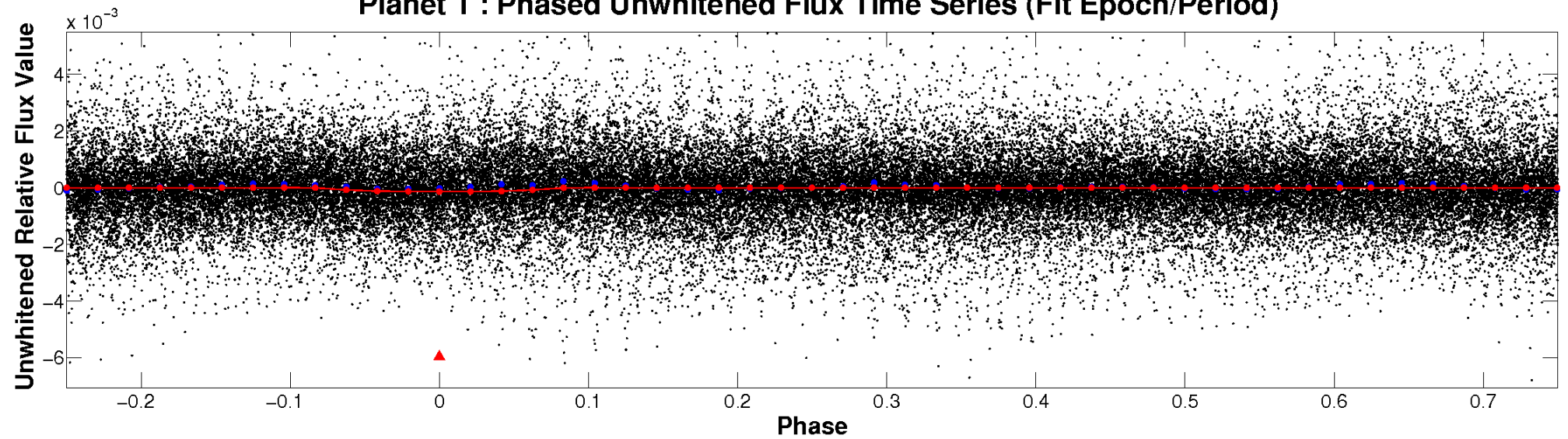
ALT Odd/Even

TCE 005607145-01

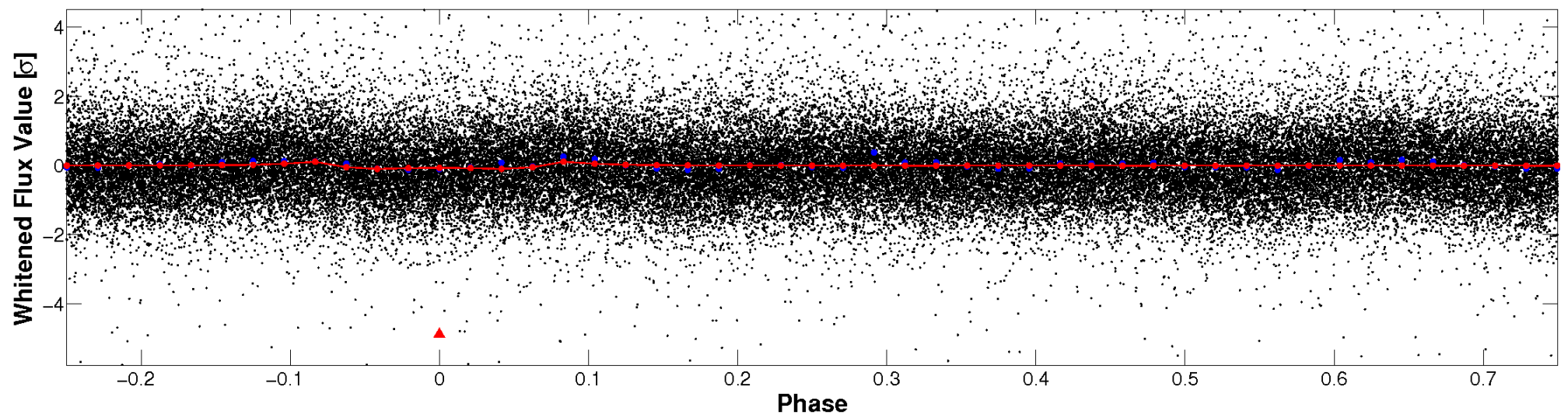


Non-Whitened Vs. Whitened Light Curve

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

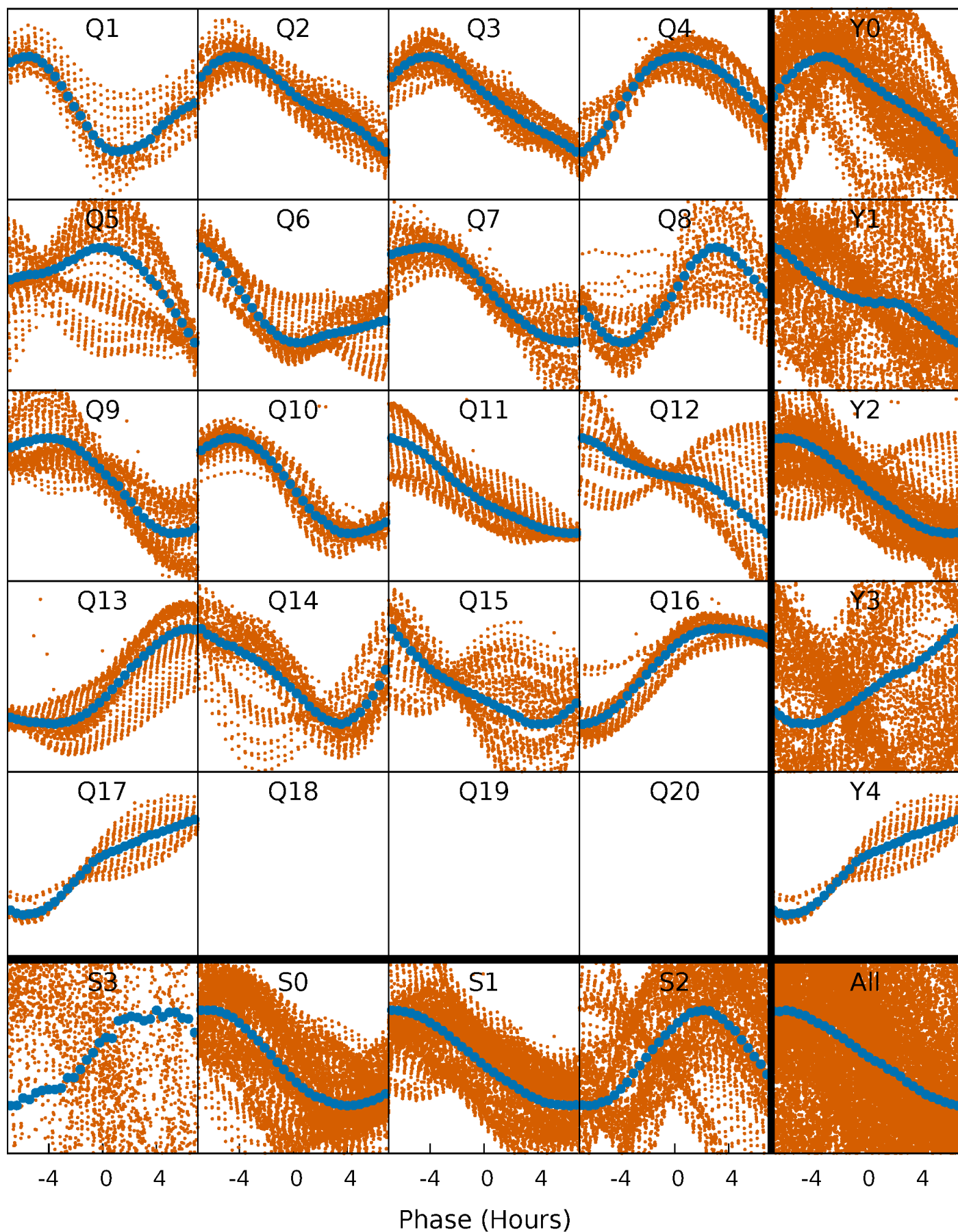


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



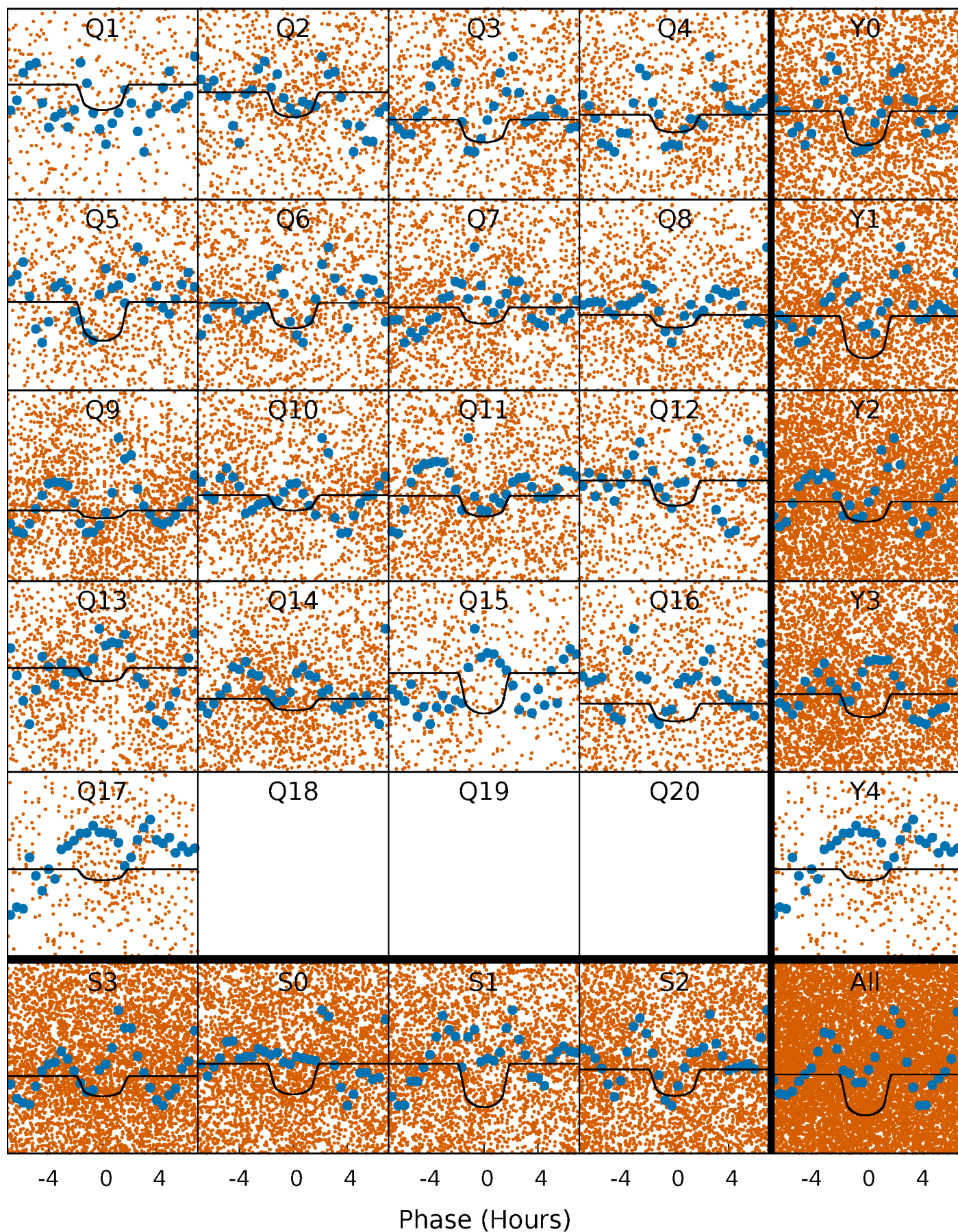
PDC Quarter-Phased Transit Curves

TCE 005607145-01 P= 0.981426 Days $T_0=132.357508$ (BKJD)



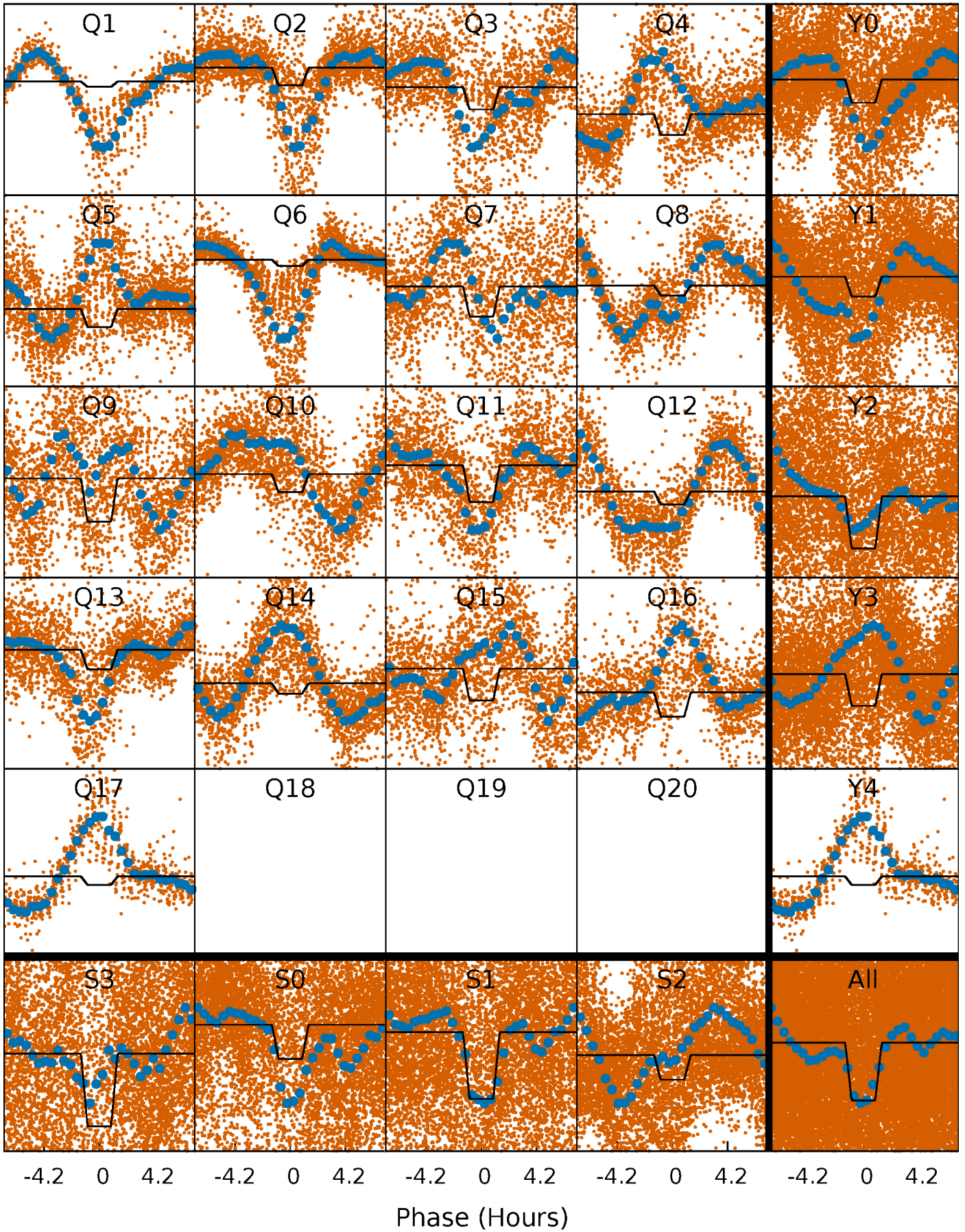
DV Quarter-Phased Transit Curves

TCE 005607145-01 P= 0.981426 Days $T_0=132.357508$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

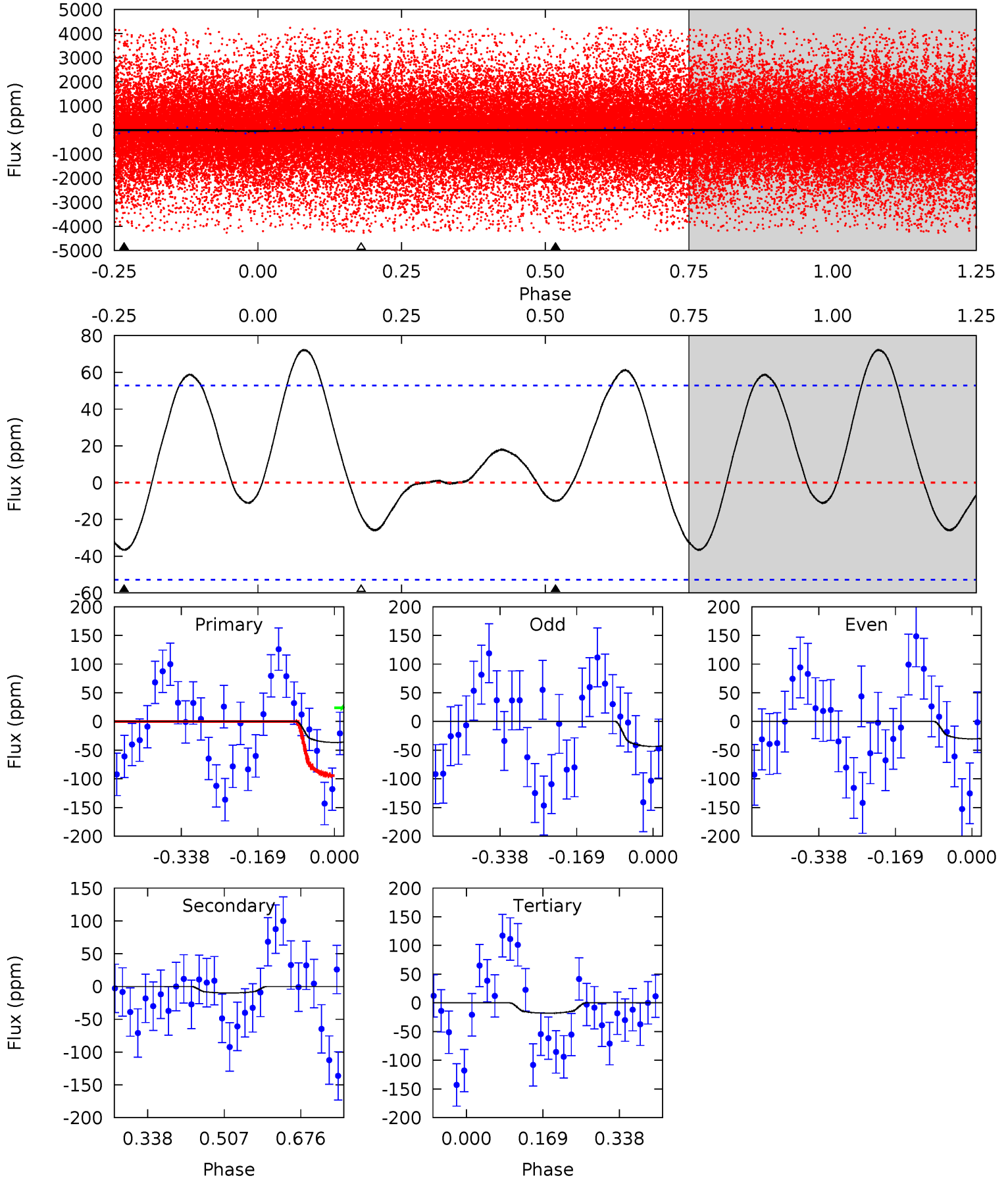
TCE 005607145-01 P= 0.981411 Days $T_0=132.348174$ (BKJD)



DV Model-Shift Uniqueness Test

005607145-01, P = 0.981426 Days, E = 131.376082 Days

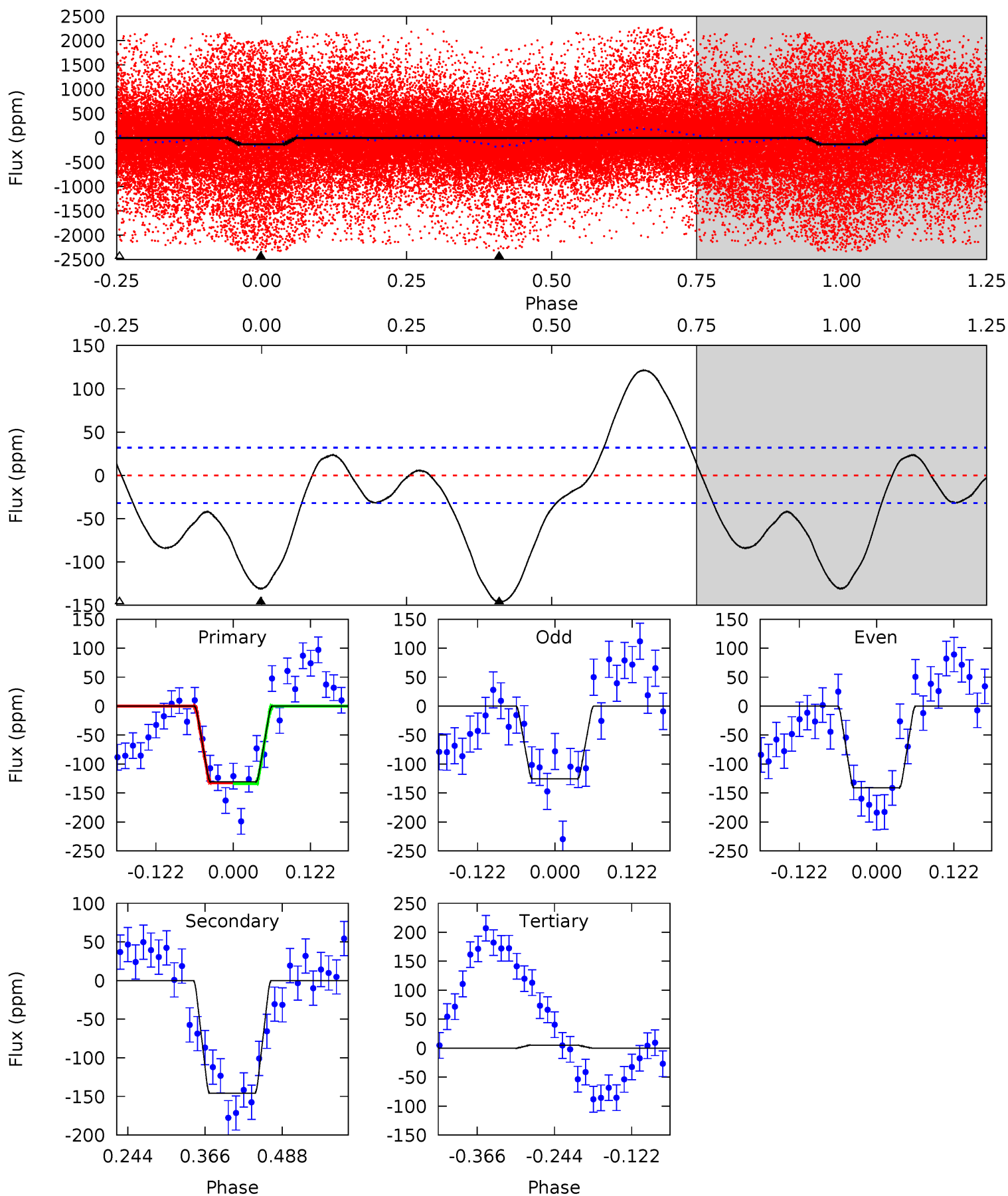
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.08	0.84	1.52	0	4.45	1.38	2.40	1.57	3.08	-0.68	0.84	0.57	-0.59	0.66	3.07



Alt Model-Shift Uniqueness Test

005607145-01, P = 0.981411 Days, E = 131.366763 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	20.7	-0.74	0	4.52	1.55	8.33	19.2	18.5	21.4	20.7	1.10	2.22	0.45	0.11



Stellar Parameters For KIC 005607145

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4809^{+133}_{-150}	$4.685^{+0.052}_{-0.028}$	$-1.060^{+0.300}_{-0.300}$	$0.567^{+0.038}_{-0.038}$	$0.567^{+0.044}_{-0.024}$	$4.382^{+0.934}_{-0.530}$
	+3%/-3%	+1%/-1%	+28%/-28%	+7%/-7%	+8%/-4%	+21%/-12%
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 005607145-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 12	$0.79^{+0.17}_{-0.16}$	1754^{+58}_{-62}	2906^{+525}_{-5490}	$2.128^{+3.807}_{-2.586}$
Alt.	-146 ± 7	$1.04^{+0.19}_{-0.17}$	1753^{+54}_{-55}	4190^{+337}_{-254}	19^{+7}_{-6}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

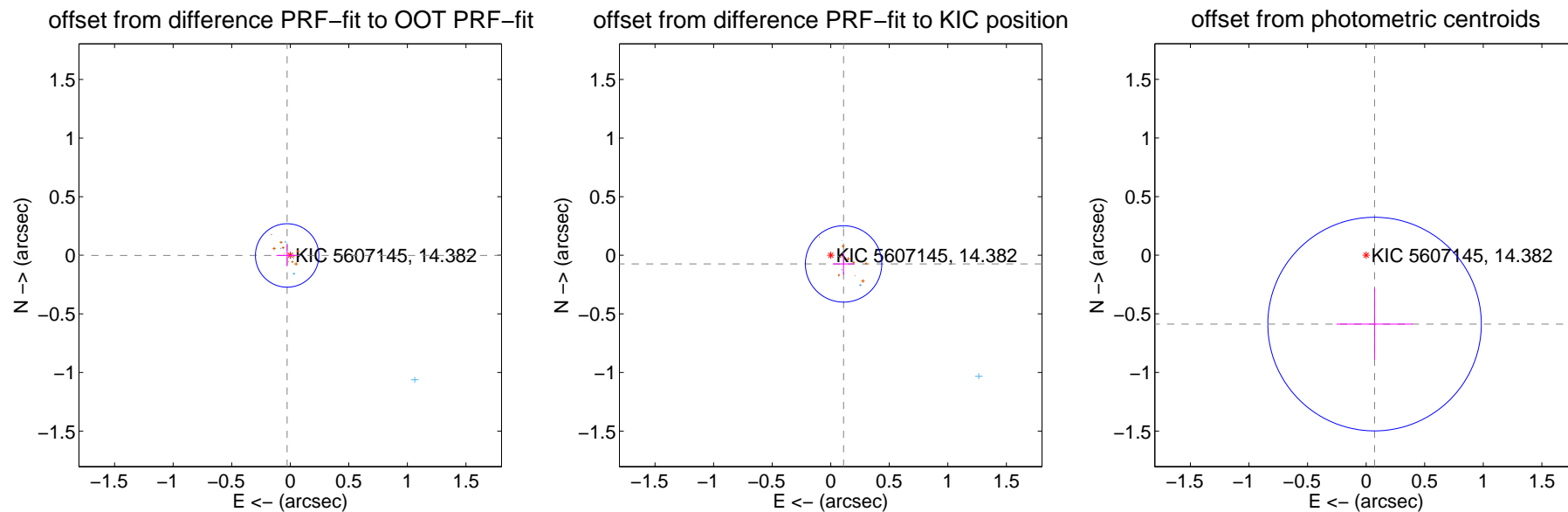
DV Centroid Data

Supplemental centroid analysis for 005607145-01. Kepler magnitude: 14.38. Transit SNR 10.16

There are 7 quarters with good PRF difference image offsets

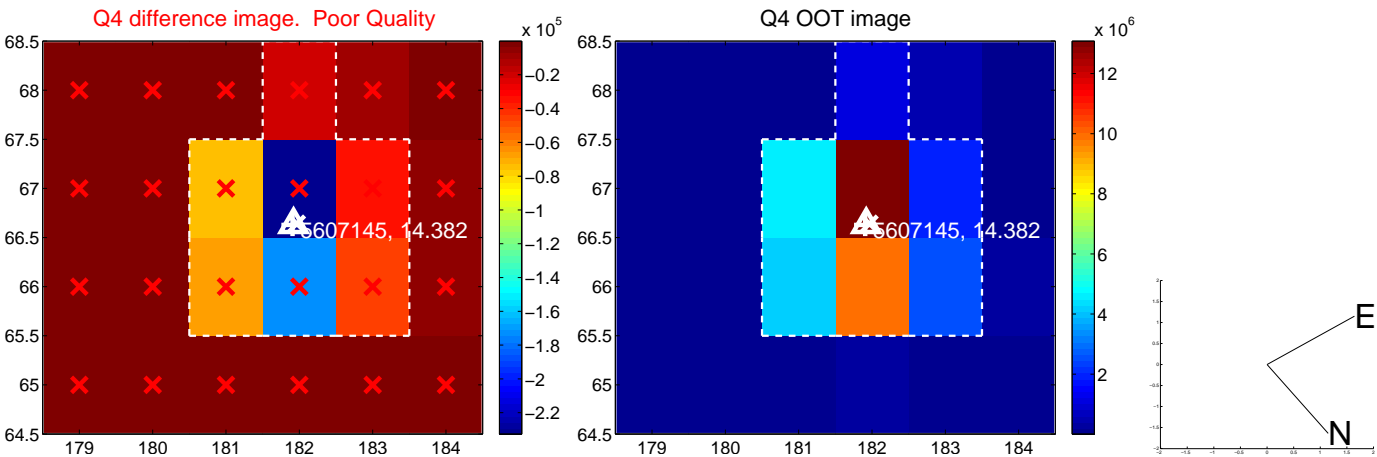
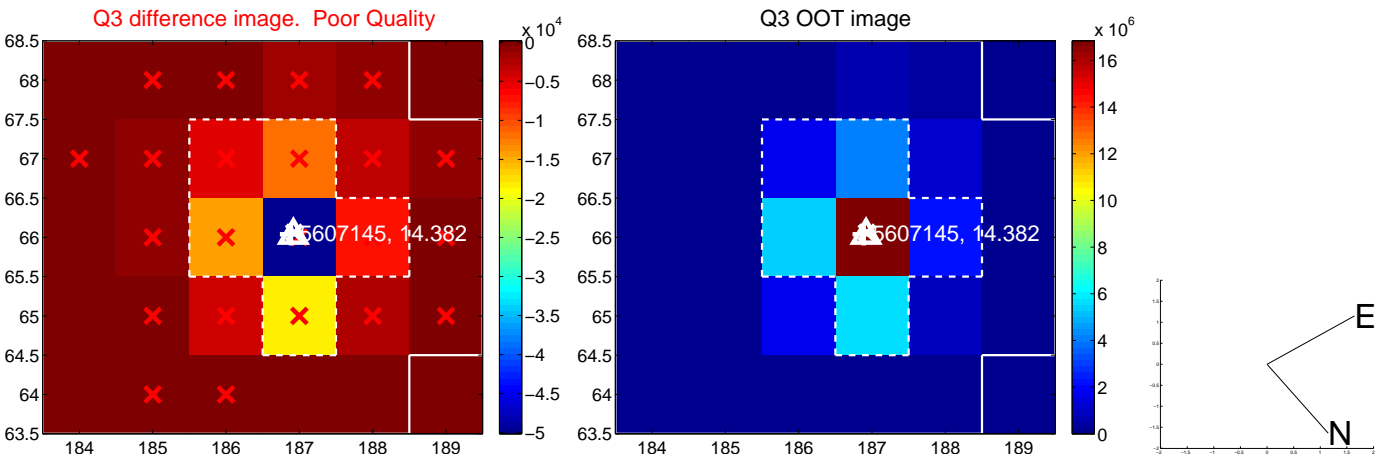
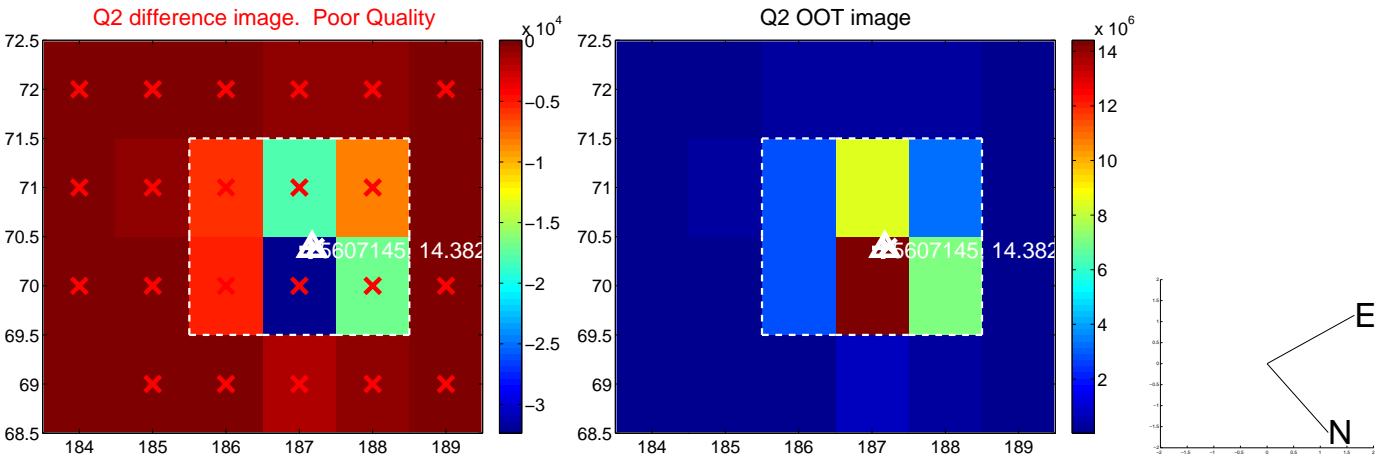
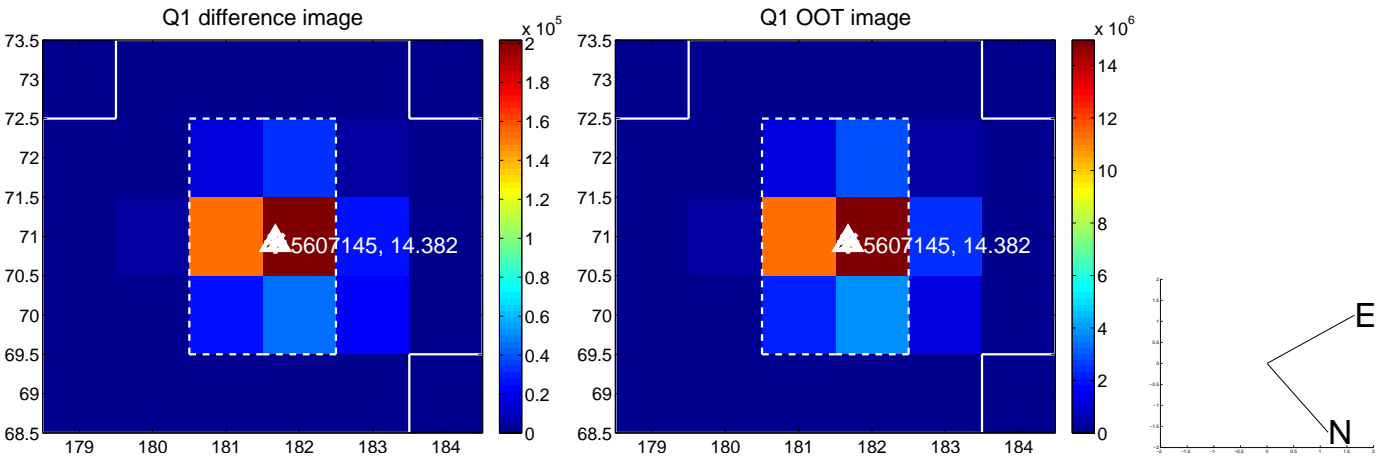
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.027 ± 0.090	0.30	0.027 ± 0.093	-0.002 ± 0.093
PRF-fit source offset from KIC position	0.132 ± 0.109	1.22	-0.110 ± 0.092	-0.074 ± 0.091
photometric centroid source offset	0.59 ± 0.30	1.95	-0.07 ± 0.33	-0.59 ± 0.30

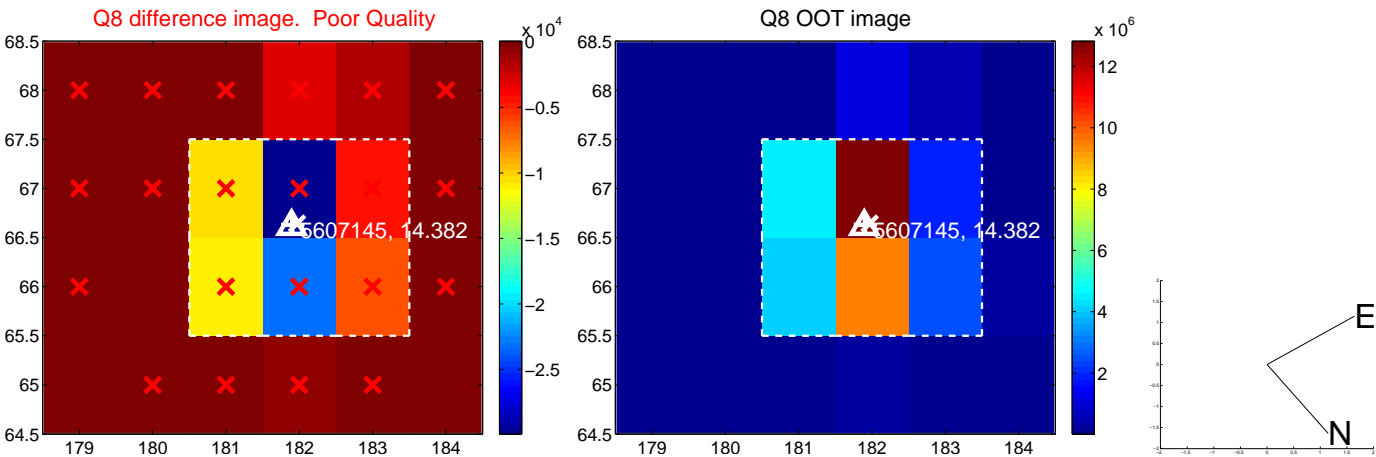
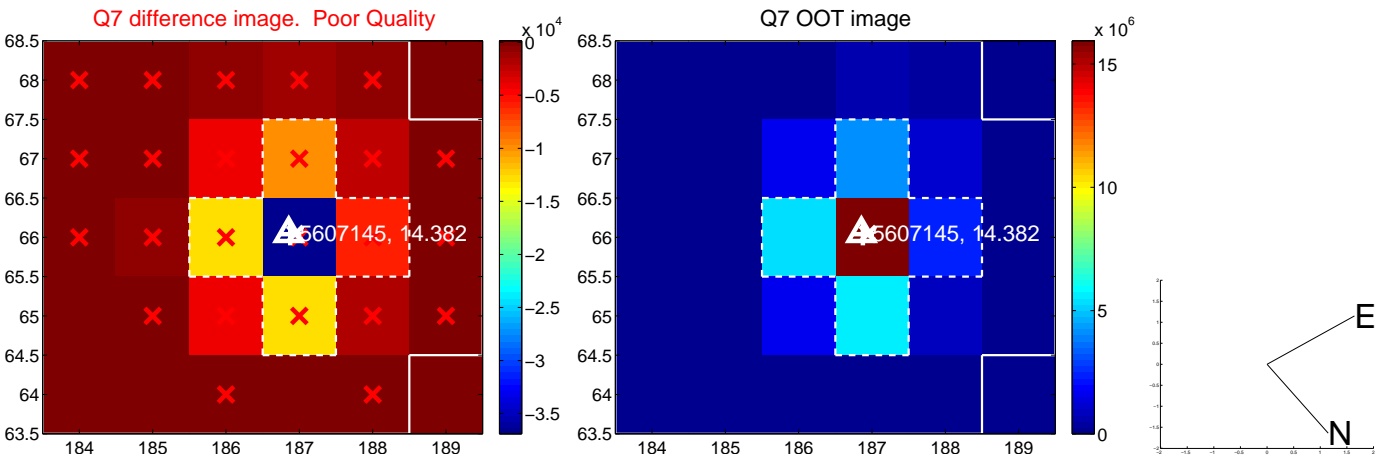
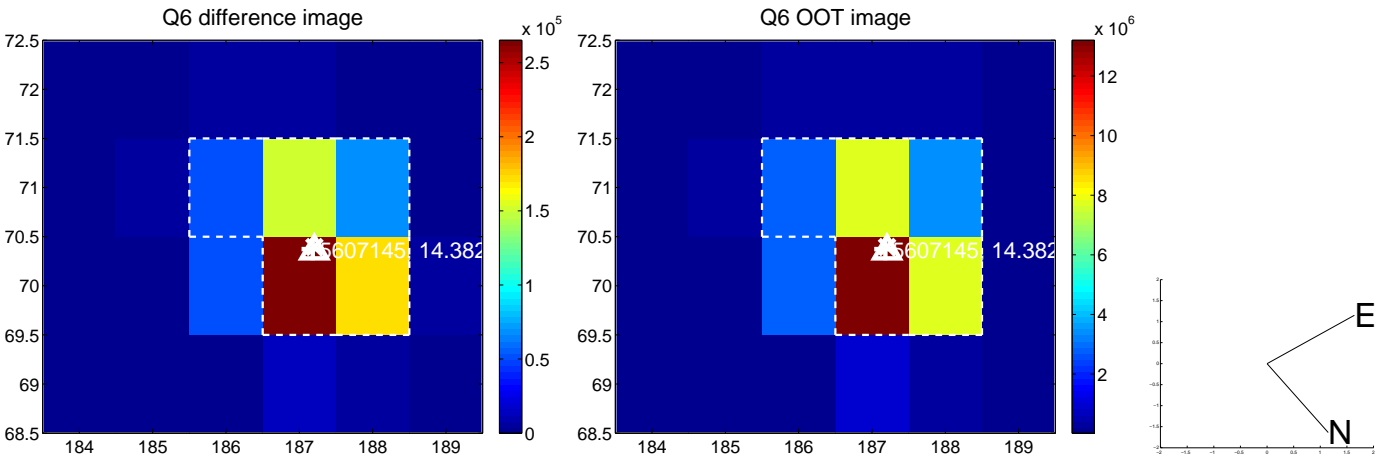
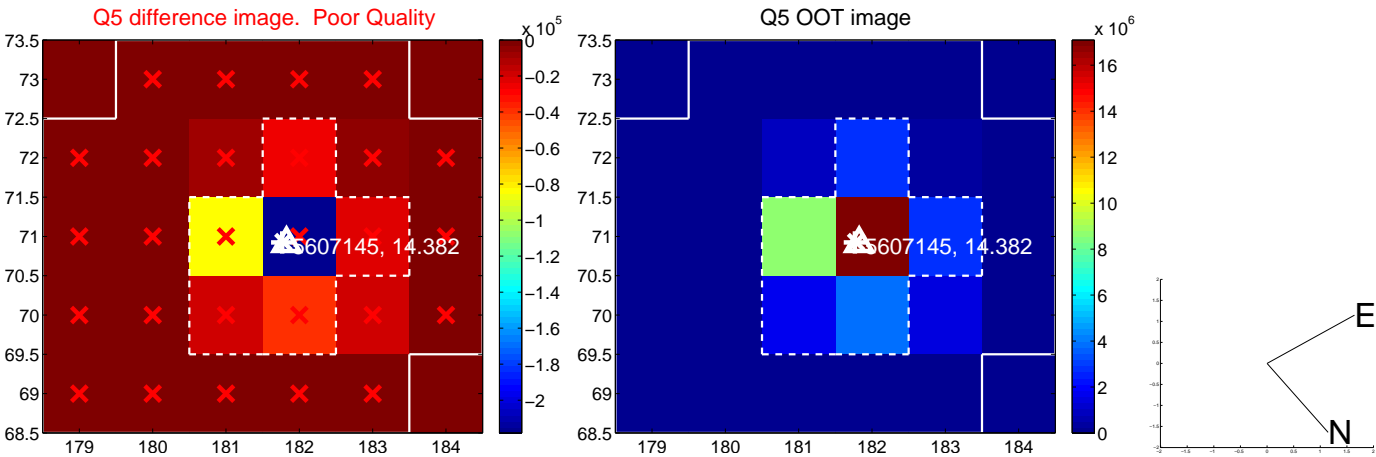


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

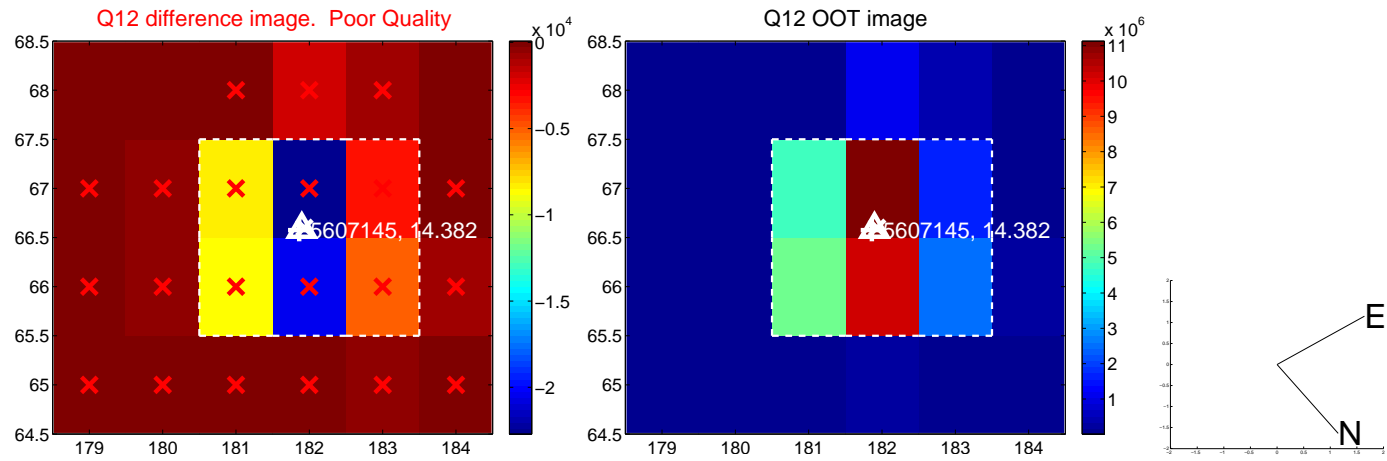
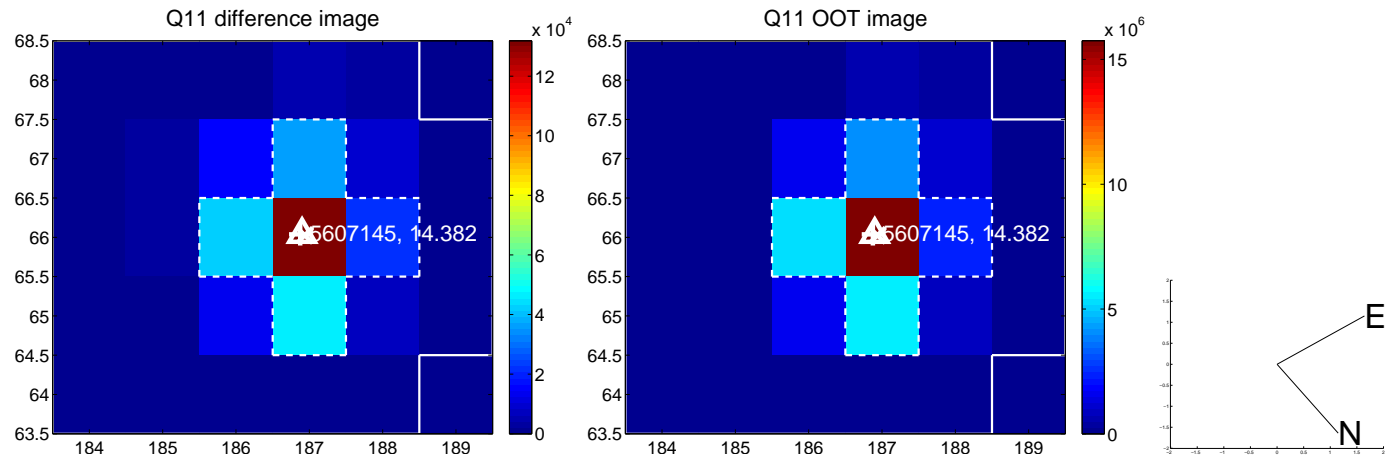
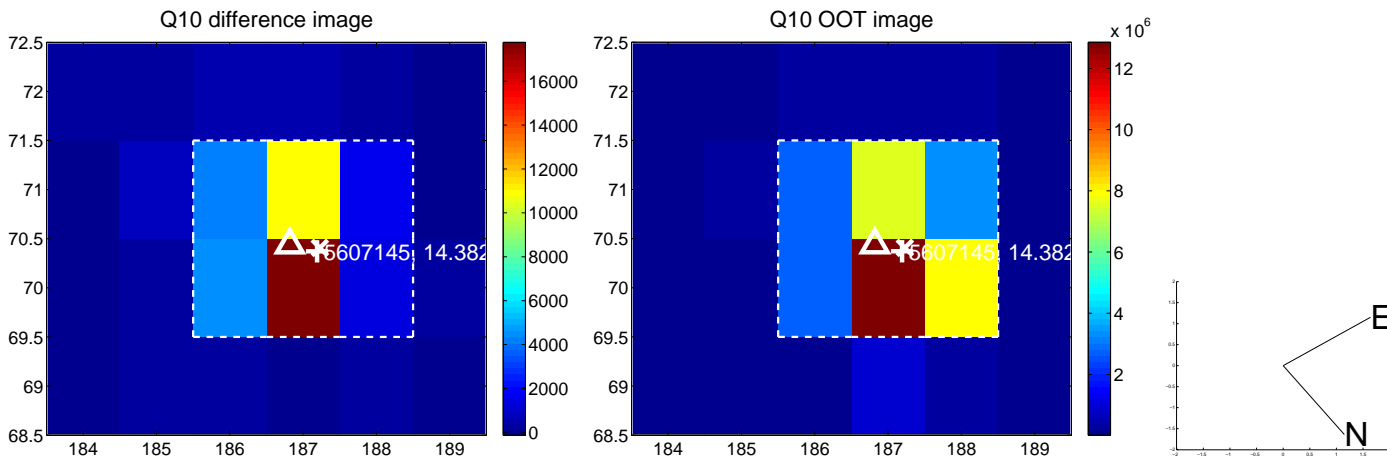
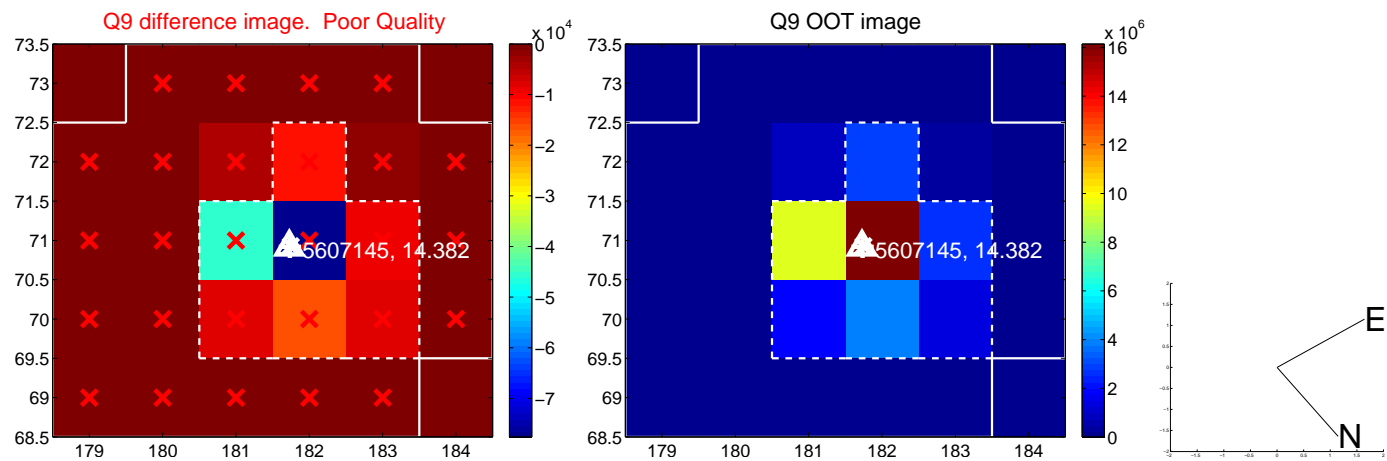
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



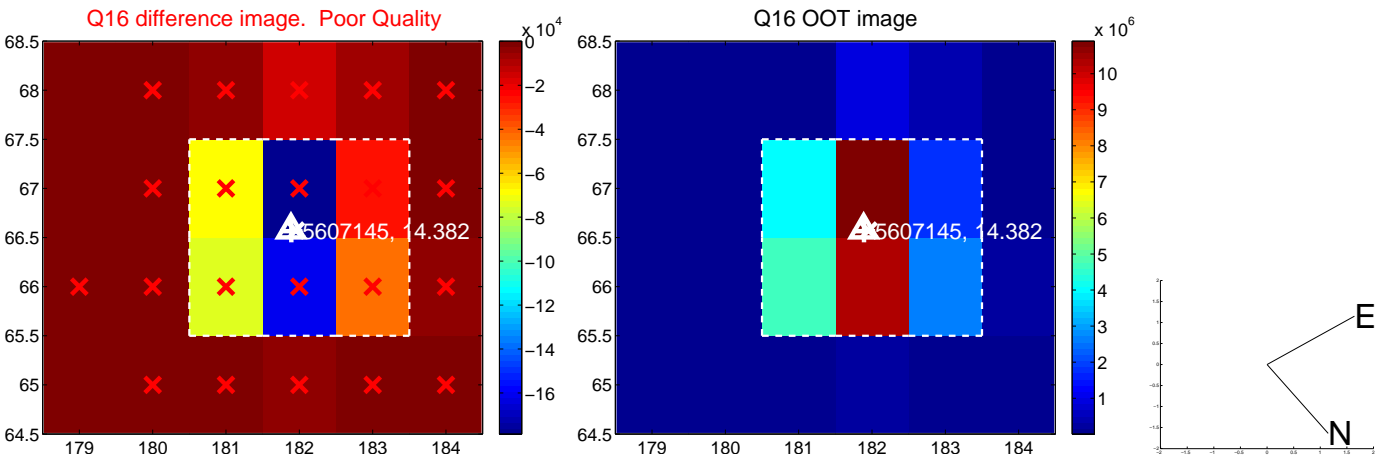
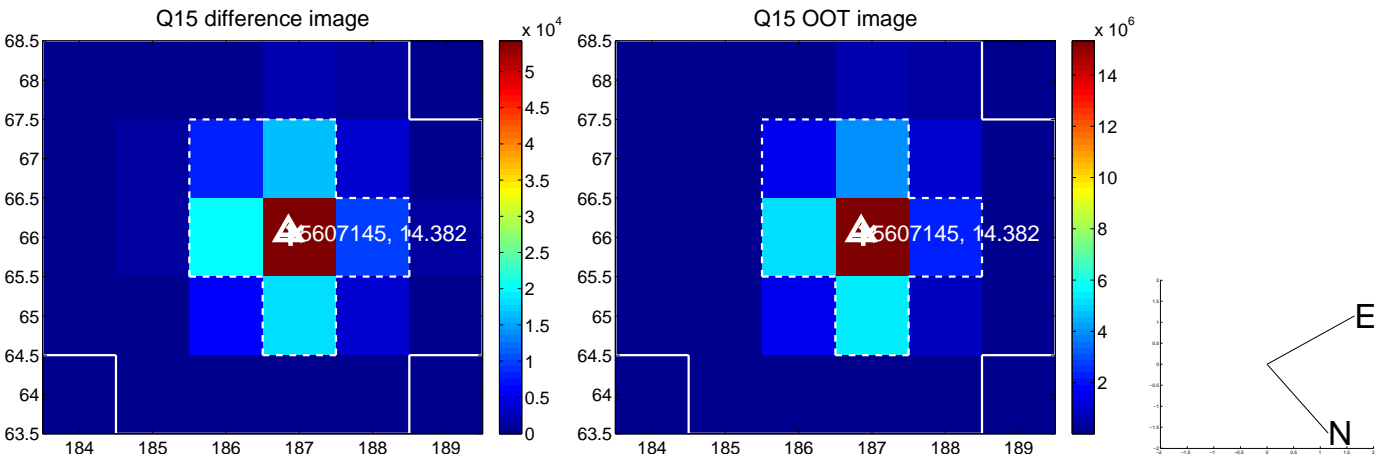
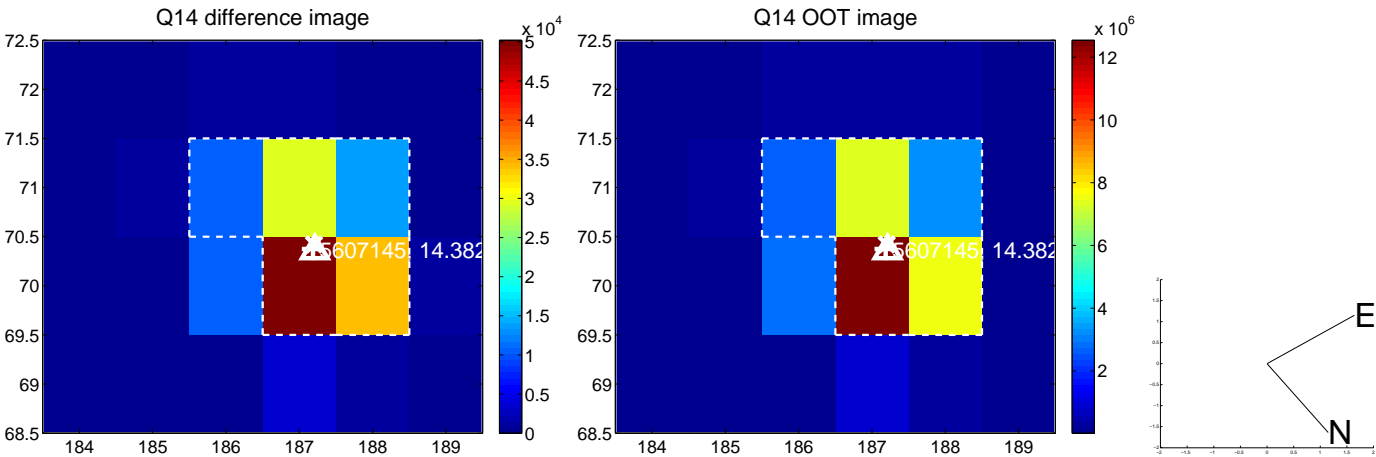
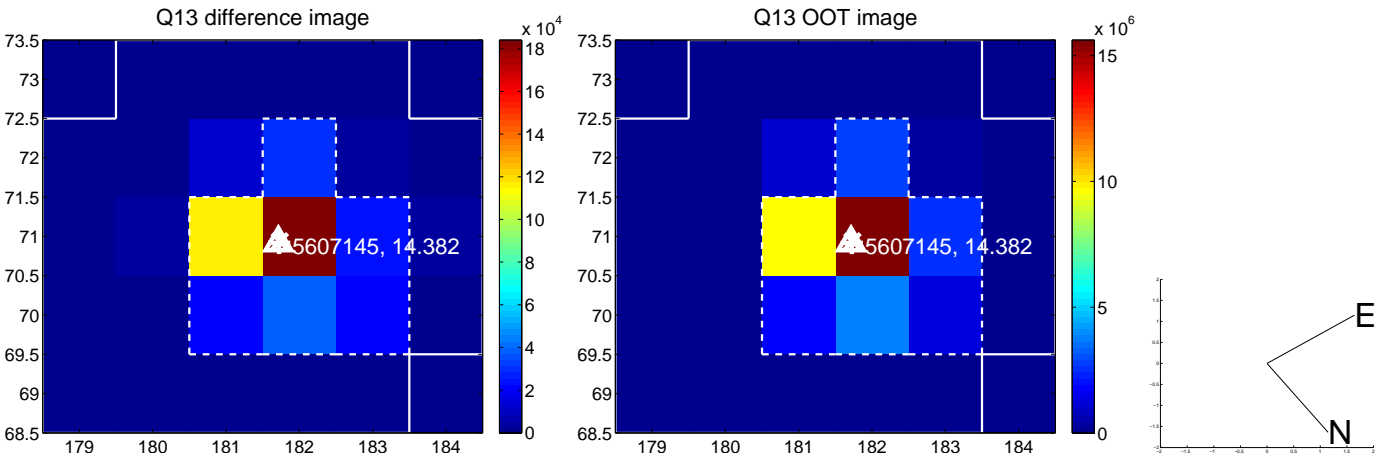
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



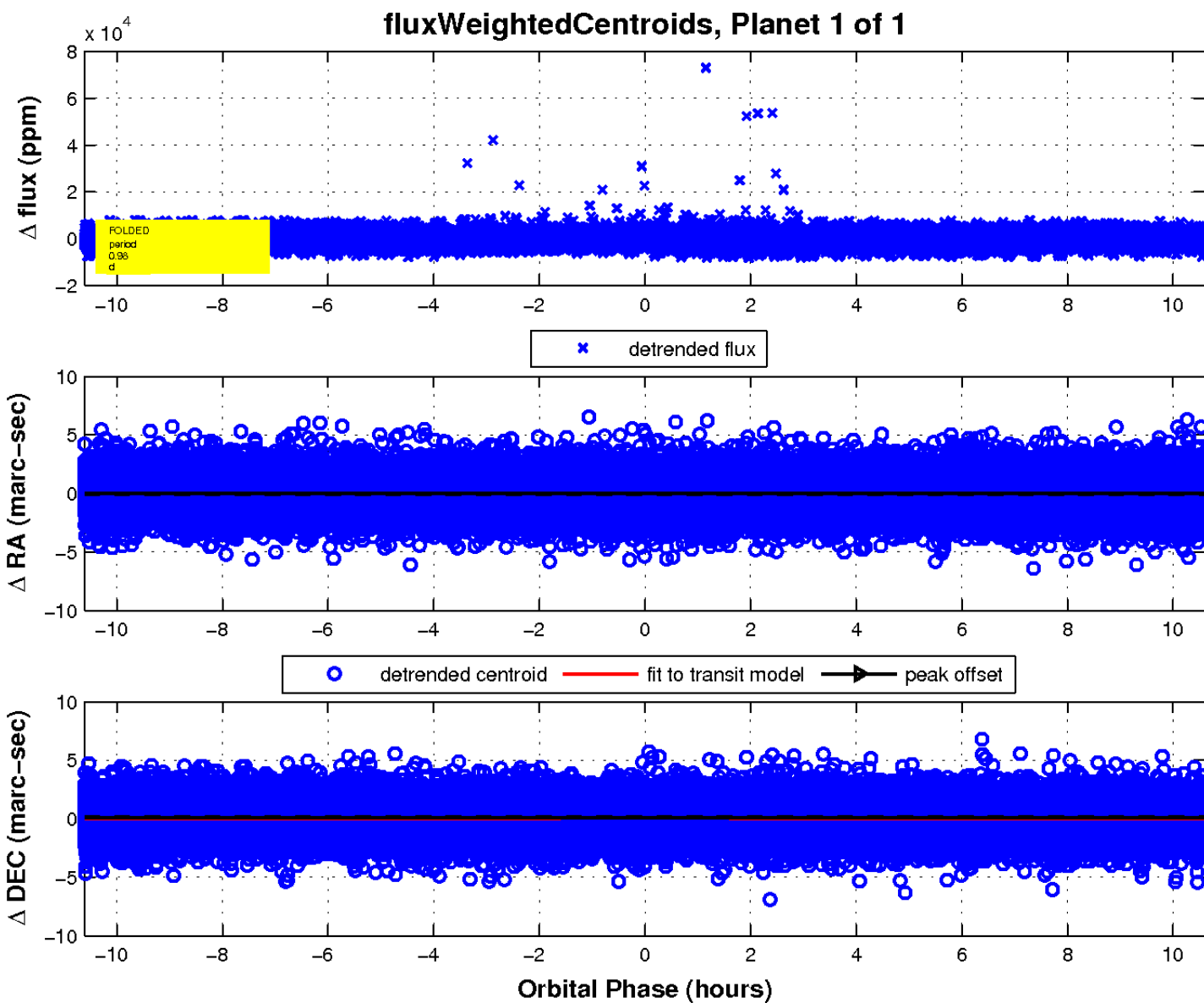
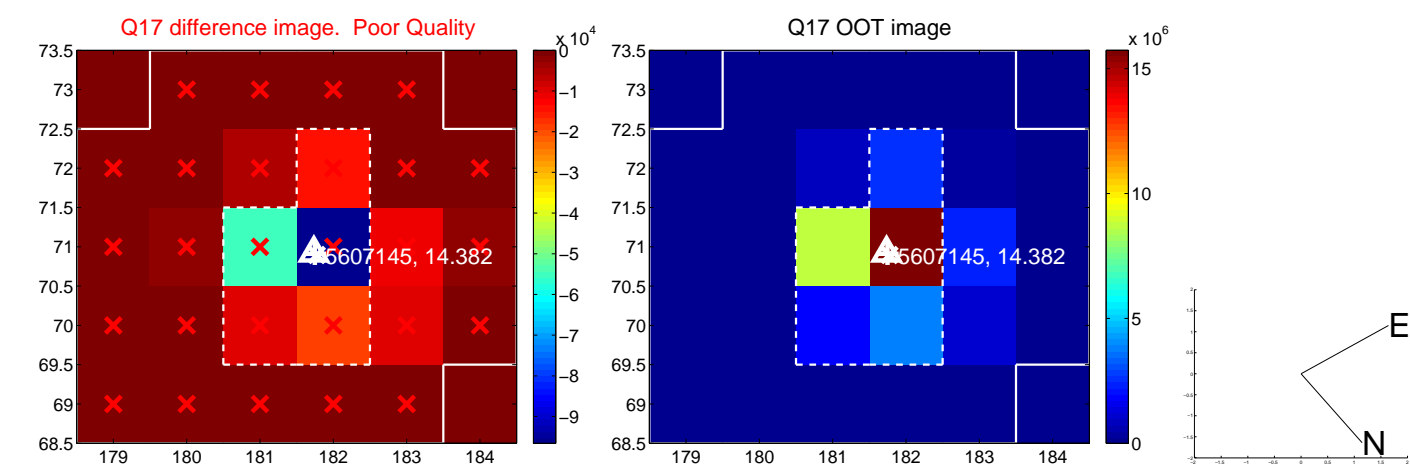
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

