

KIC 006141725

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})
006141725-01	OBS	No	0.610386	131.802343	13.5	4.671	10.9	9.6	3.67	6807	1.41	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006141725-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL —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.

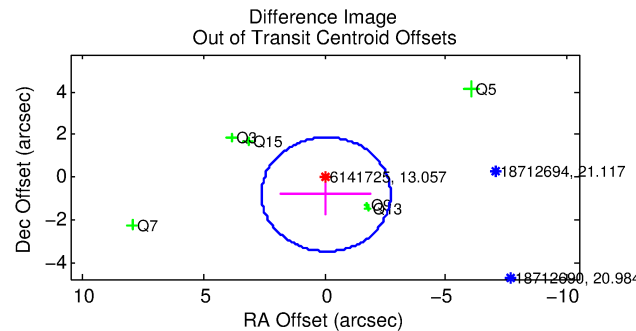
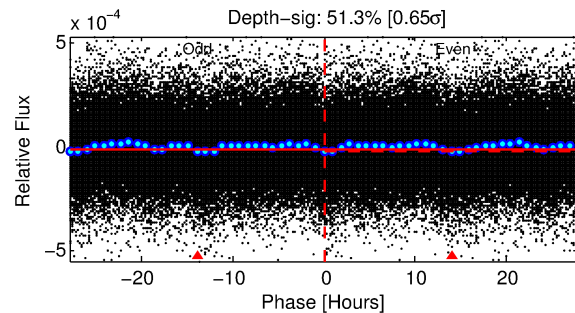
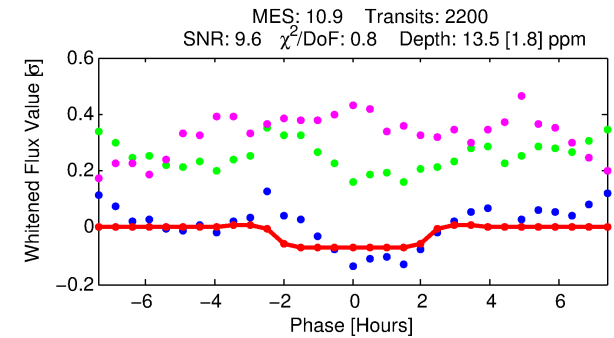
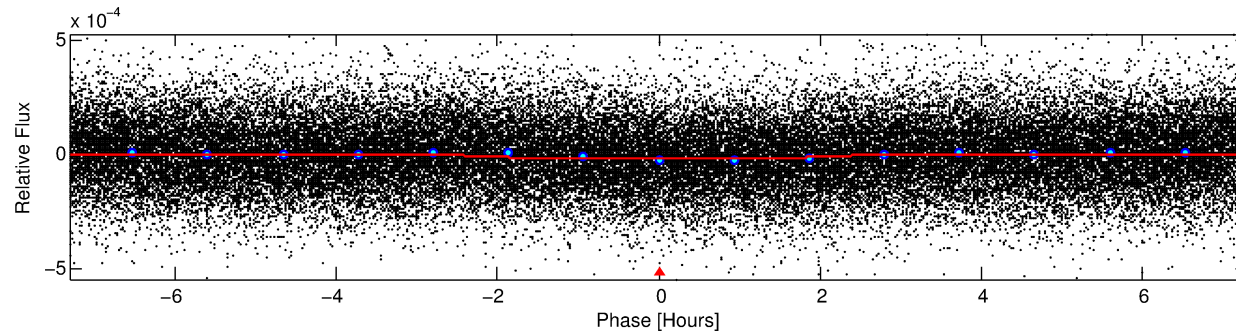
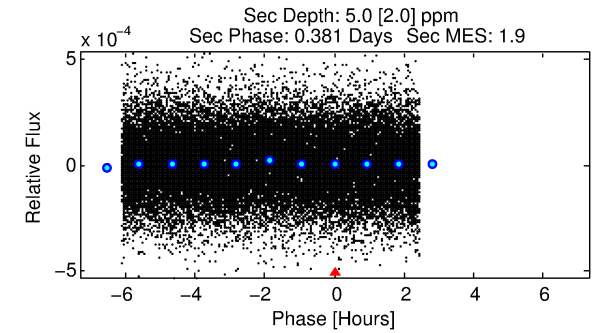
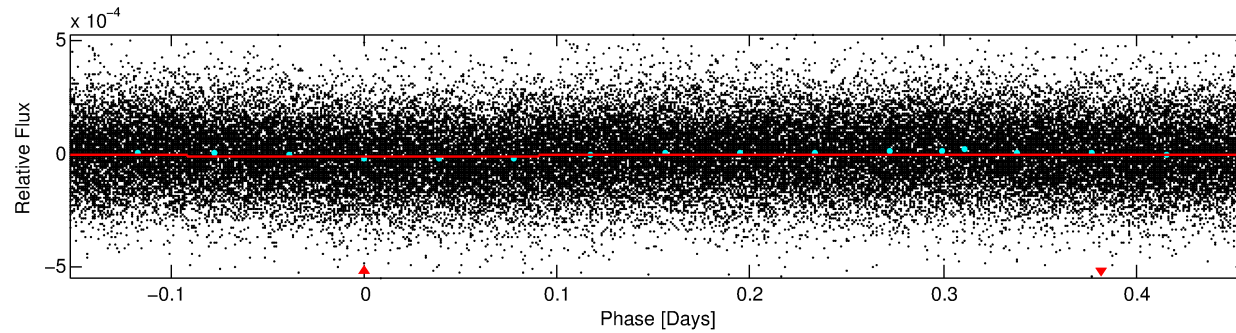
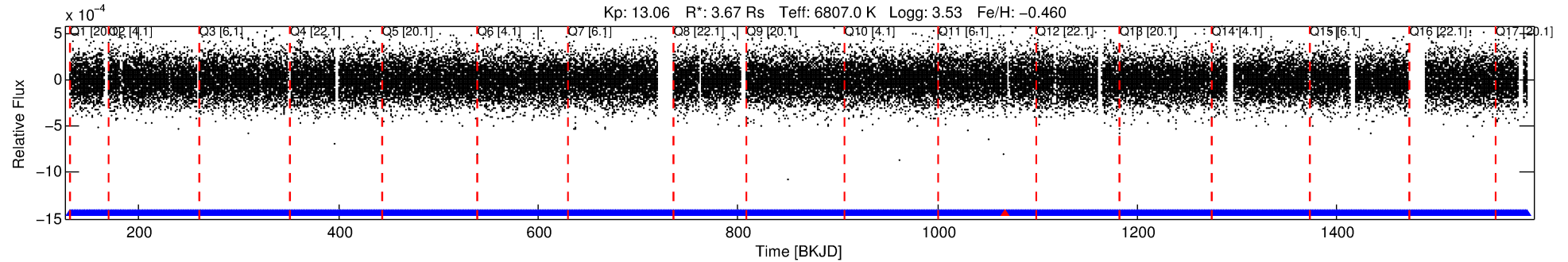
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006141725-01

No Significant Match Found

DV One-Page Summary

KIC: 6141725 Candidate: 1 of 1 Period: 0.610 d



DV Fit Results:

Period = 0.61039 [0.00001] d
Epoch = 131.8023 [0.0044] BKJD
Rp/R* = 0.0035 [0.0022]
a/R* = 1.14 [0.90]
b = 0.56 [4.34]
Seff = N/A
Teq = N/A
Rp = 1.41 [1.06] Re
a = N/A
Ag = N/A
Teffp = N/A

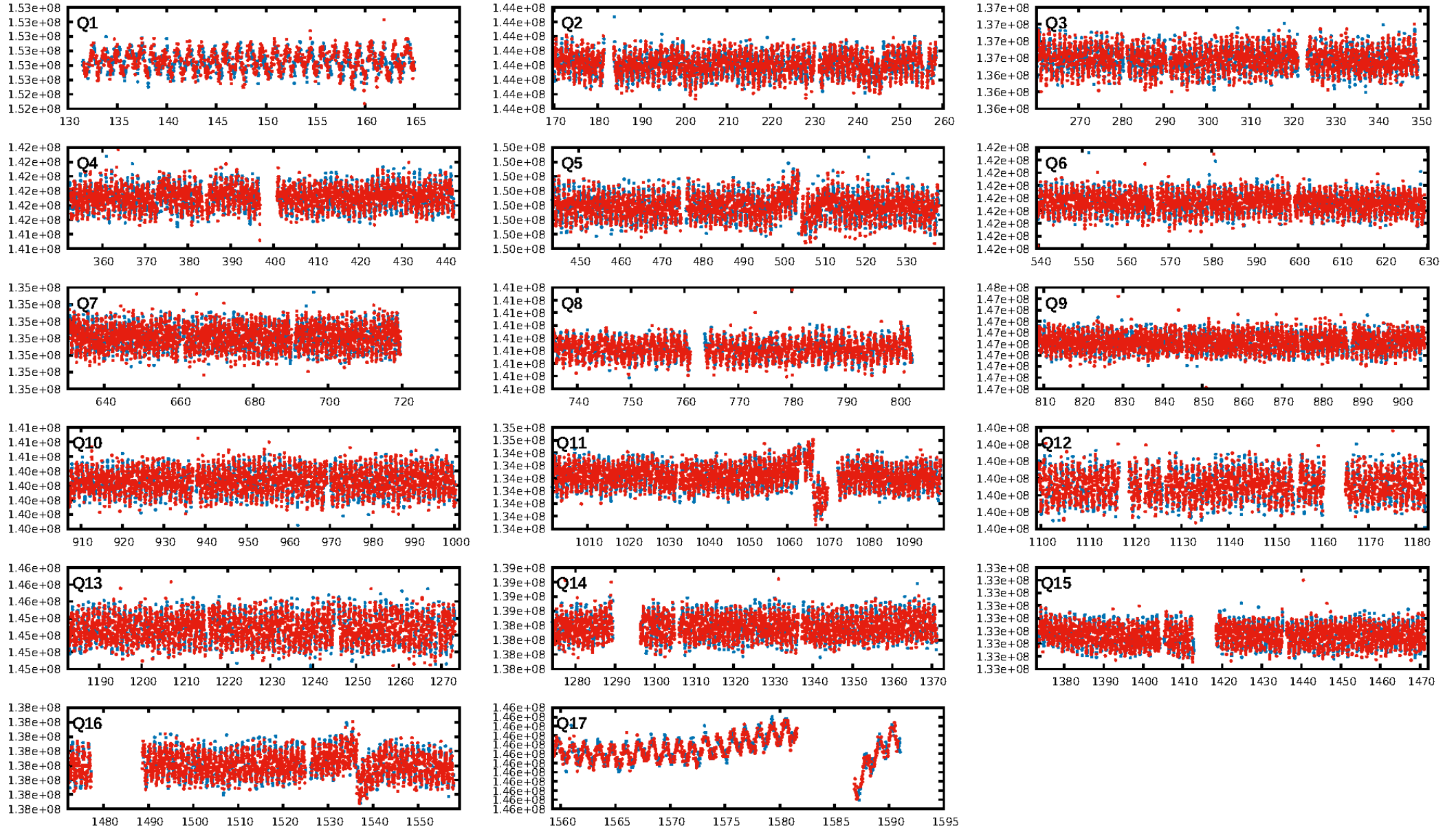
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.04e-54
RollingBand-fgt: 1.00 [2100/2101]
GhostDiagnostic-chr: 2.291
Centroid-sig: 2.6%
Centroid-so: 1.903 arcsec [1.98σ]
OotOffset-rm: 0.798 arcsec [0.90σ]
KicOffset-rm: 0.849 arcsec [1.04σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 1.00 [17/17]

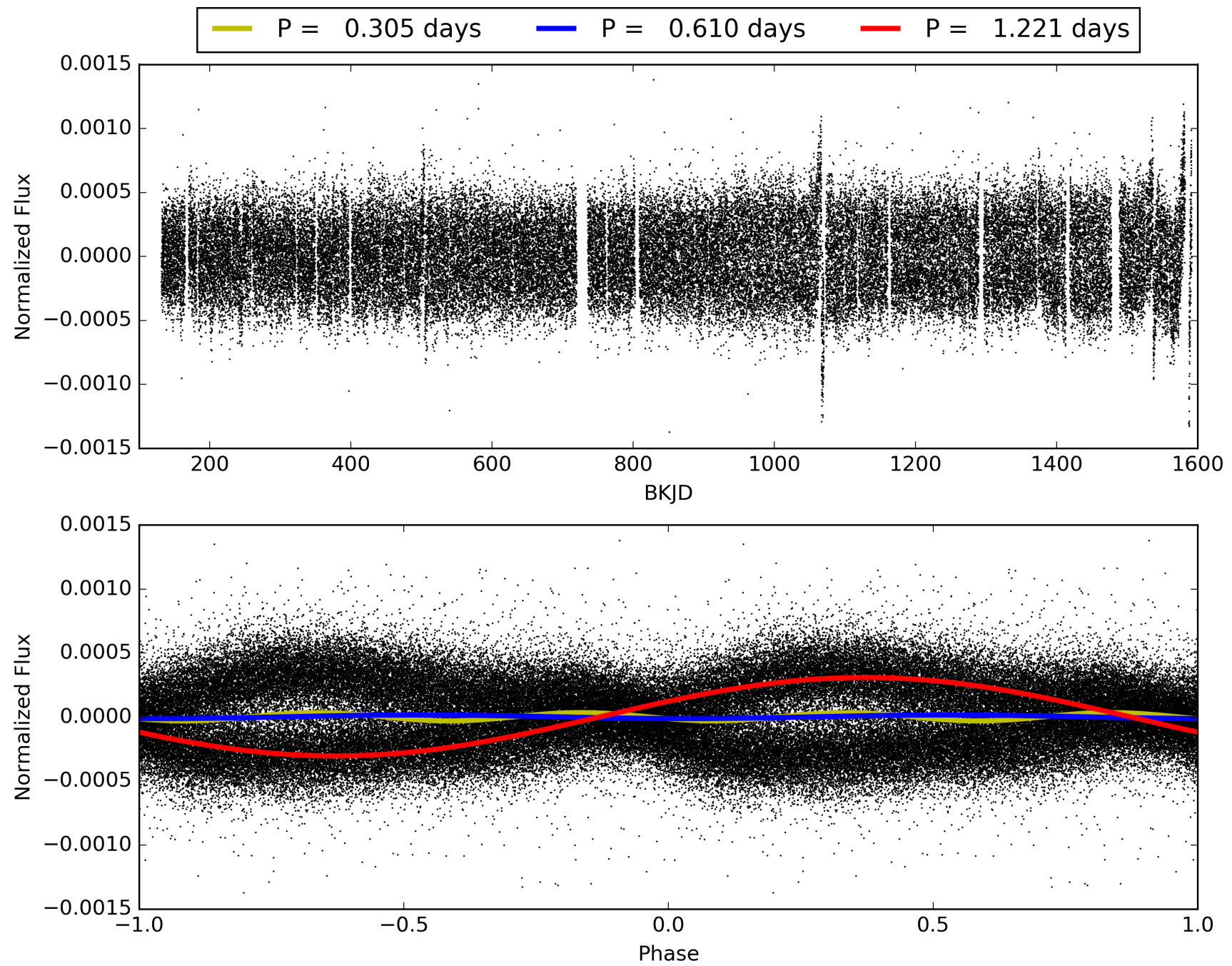
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:21:56 Z

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

TCE 006141725-01, PDC Light Curves

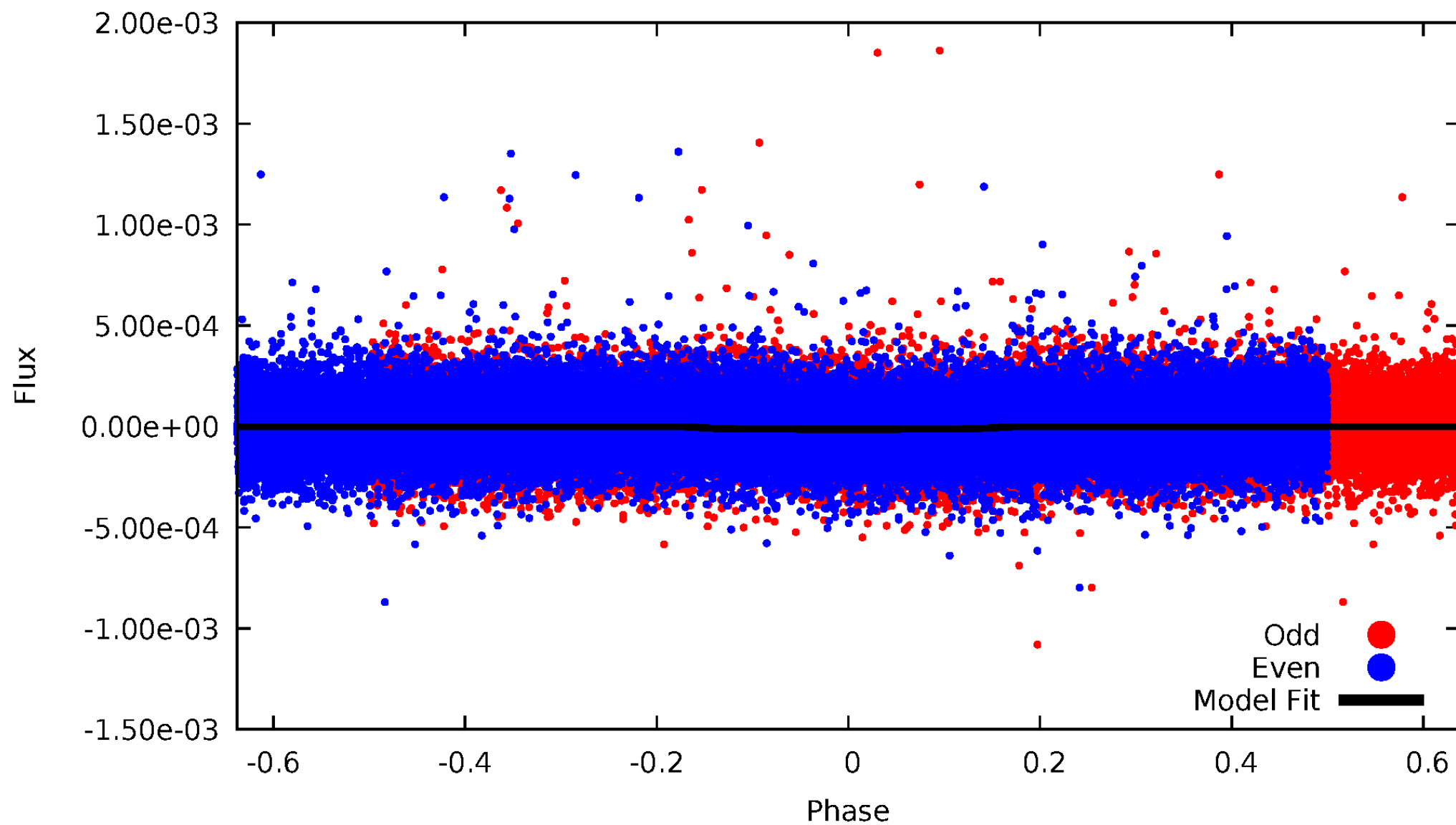


TCE 006141725-01



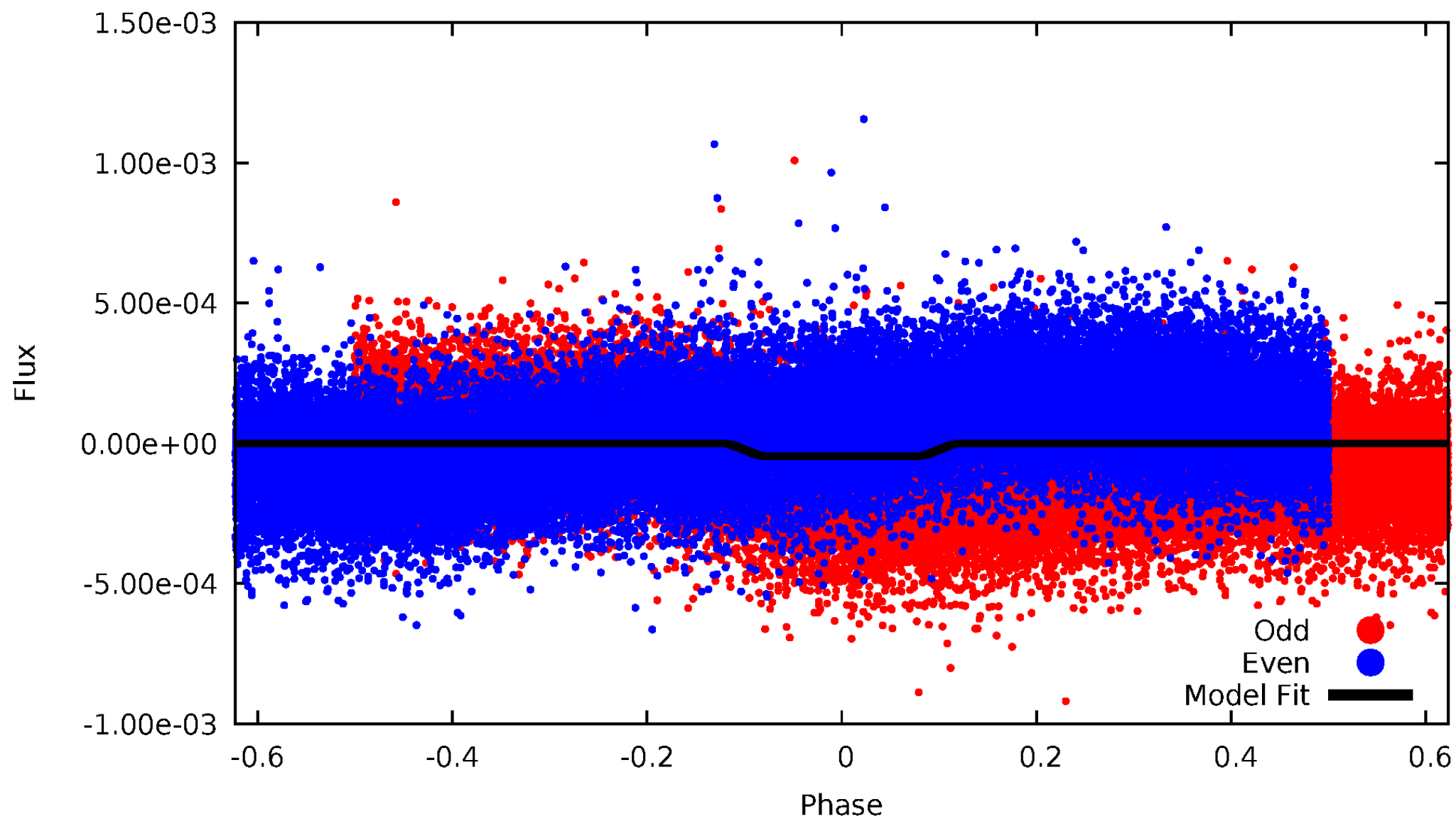
DV Odd/Even

TCE 006141725-01



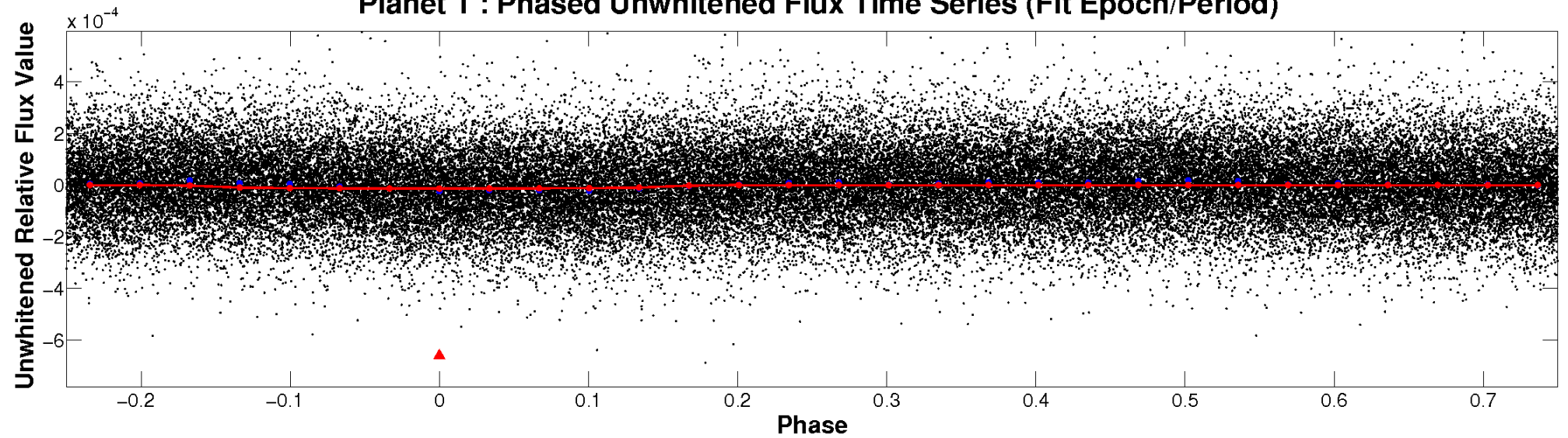
ALT Odd/Even

TCE 006141725-01

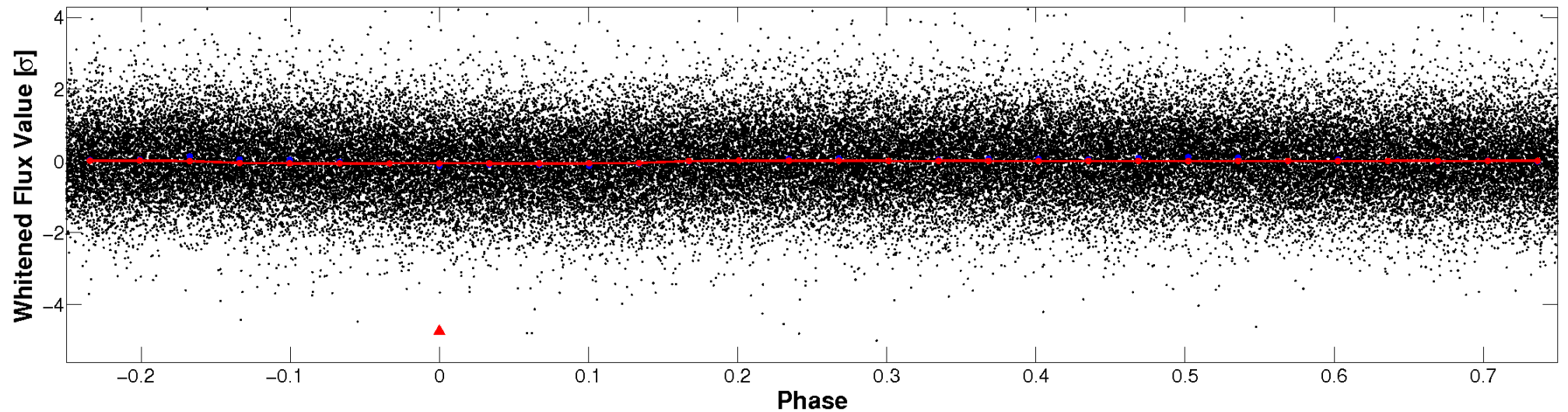


Non-Whitened Vs. Whitened Light Curve

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

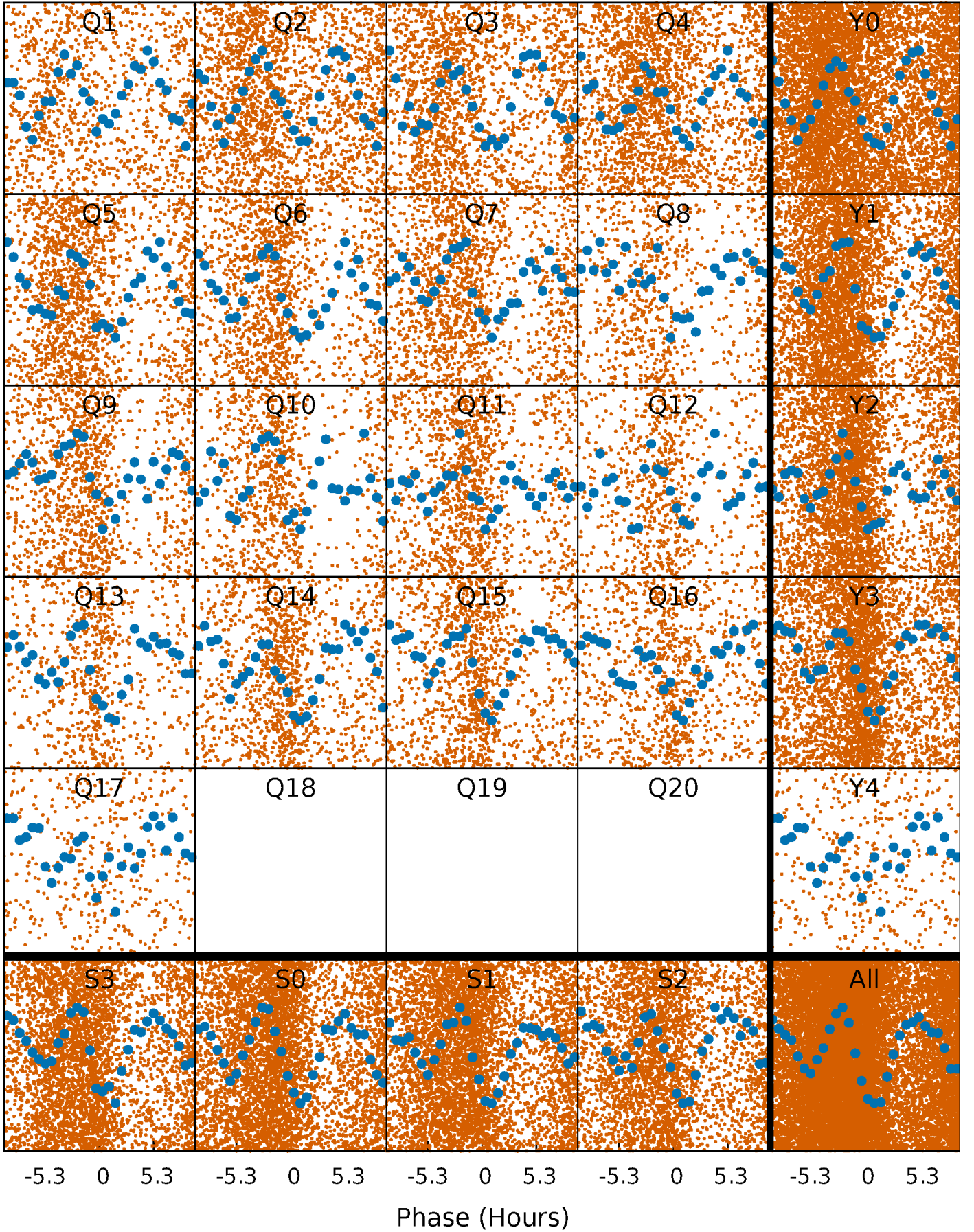


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



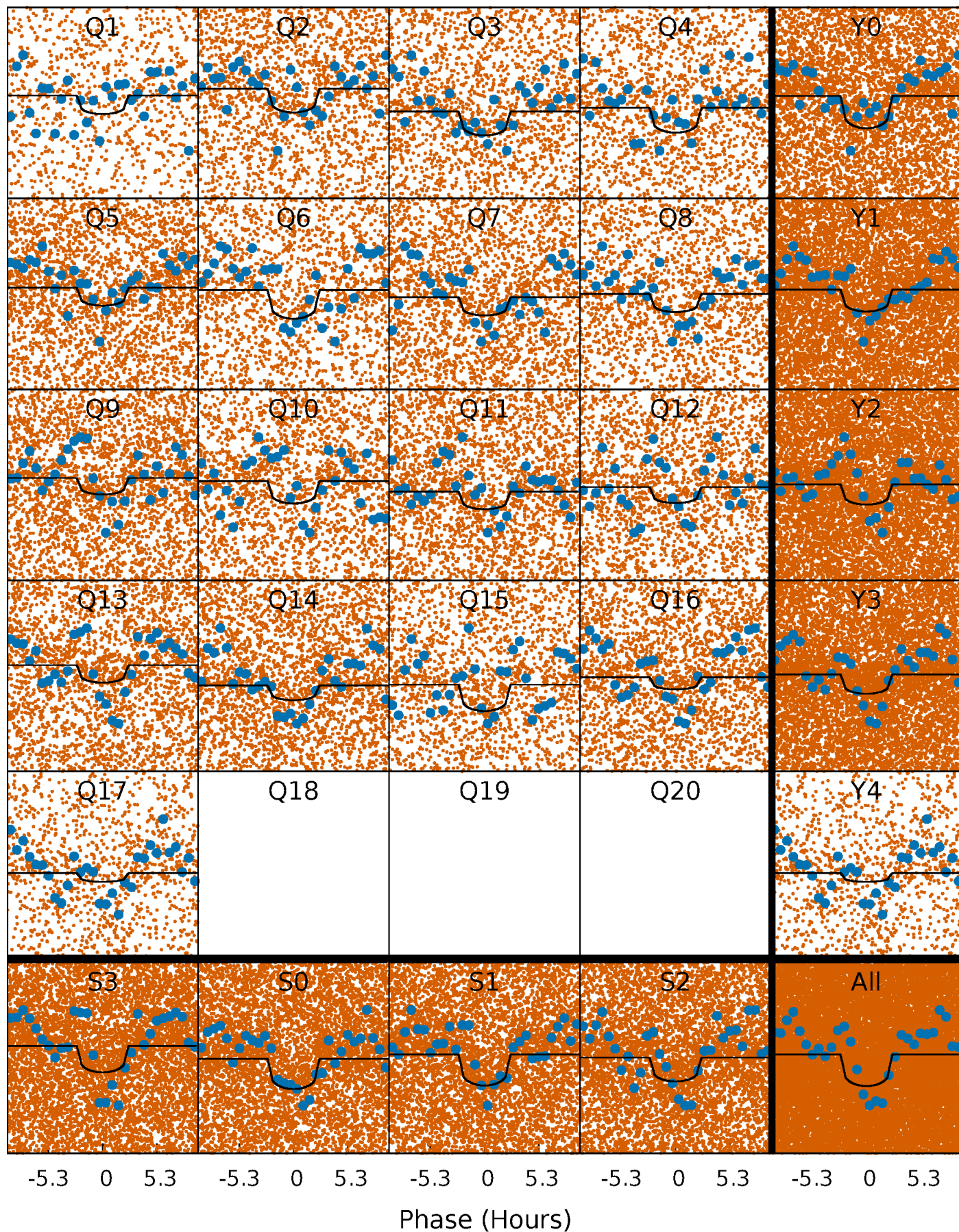
PDC Quarter-Phased Transit Curves

TCE 006141725-01 P= 0.610386 Days $T_0=131.802344$ (BKJD)



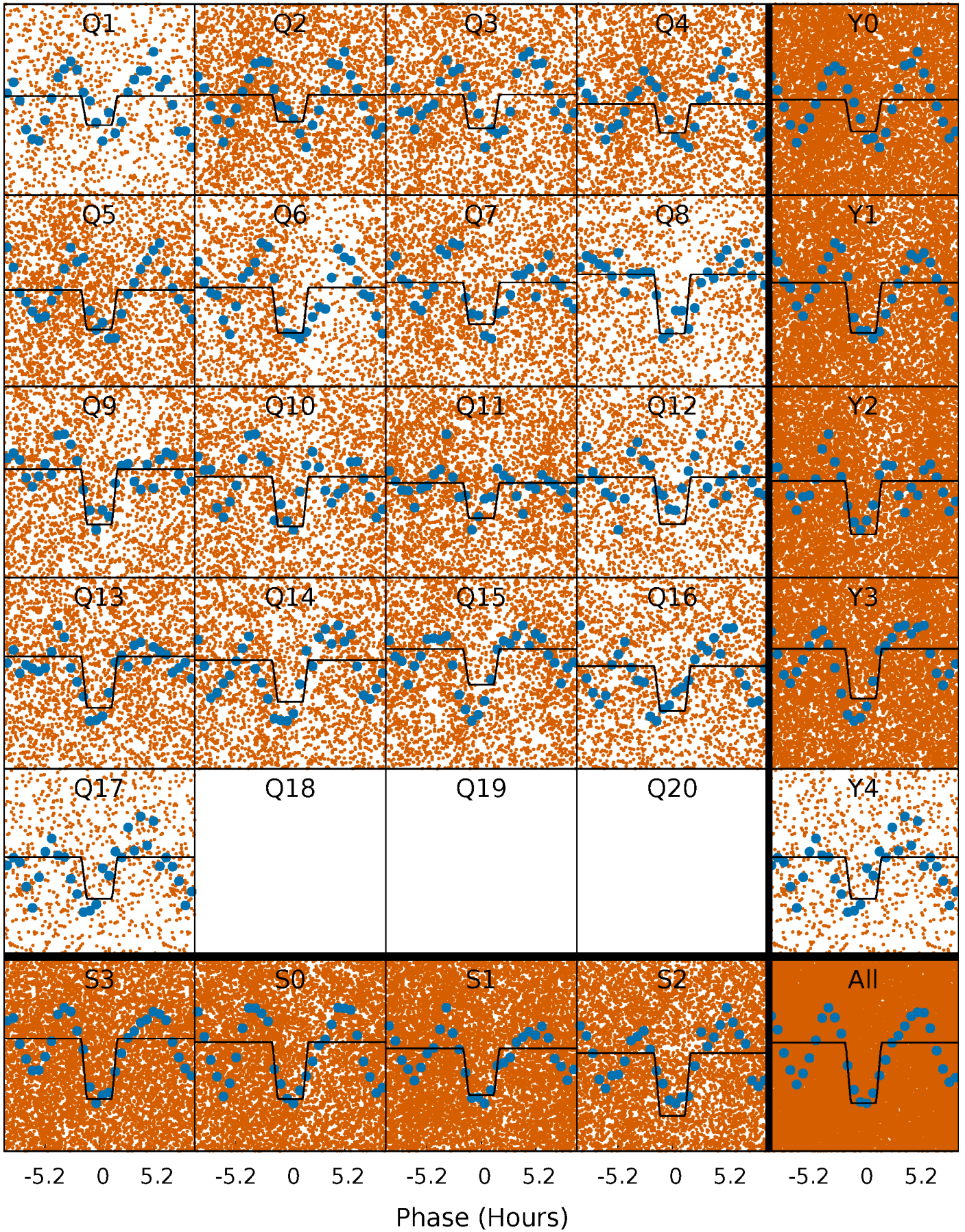
DV Quarter-Phased Transit Curves

TCE 006141725-01 P= 0.610386 Days $T_0=131.802344$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

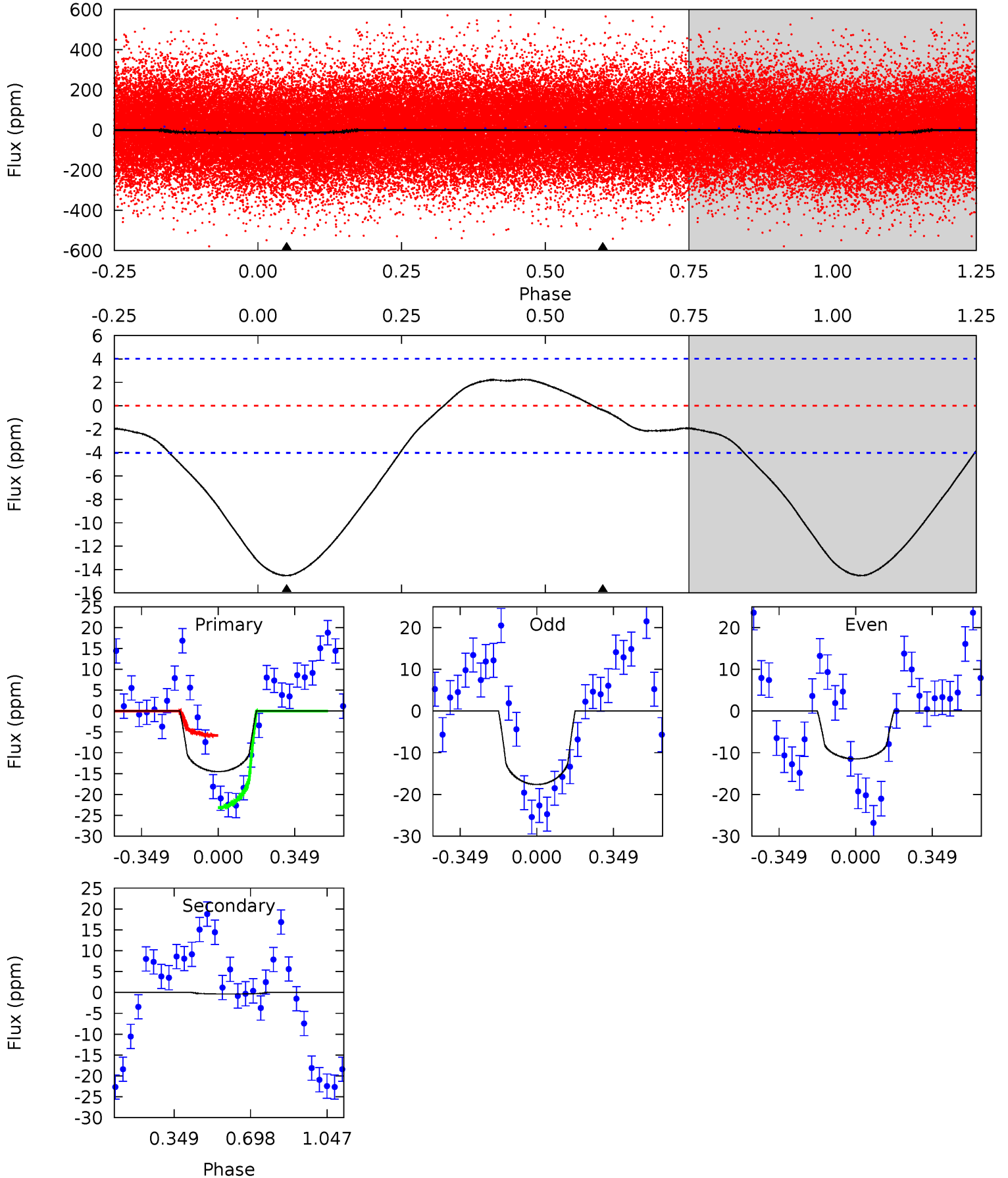
TCE 006141725-01 P= 0.610429 Days $T_0=131.788073$ (BKJD)



DV Model-Shift Uniqueness Test

006141725-01, P = 0.610386 Days, E = 131.191958 Days

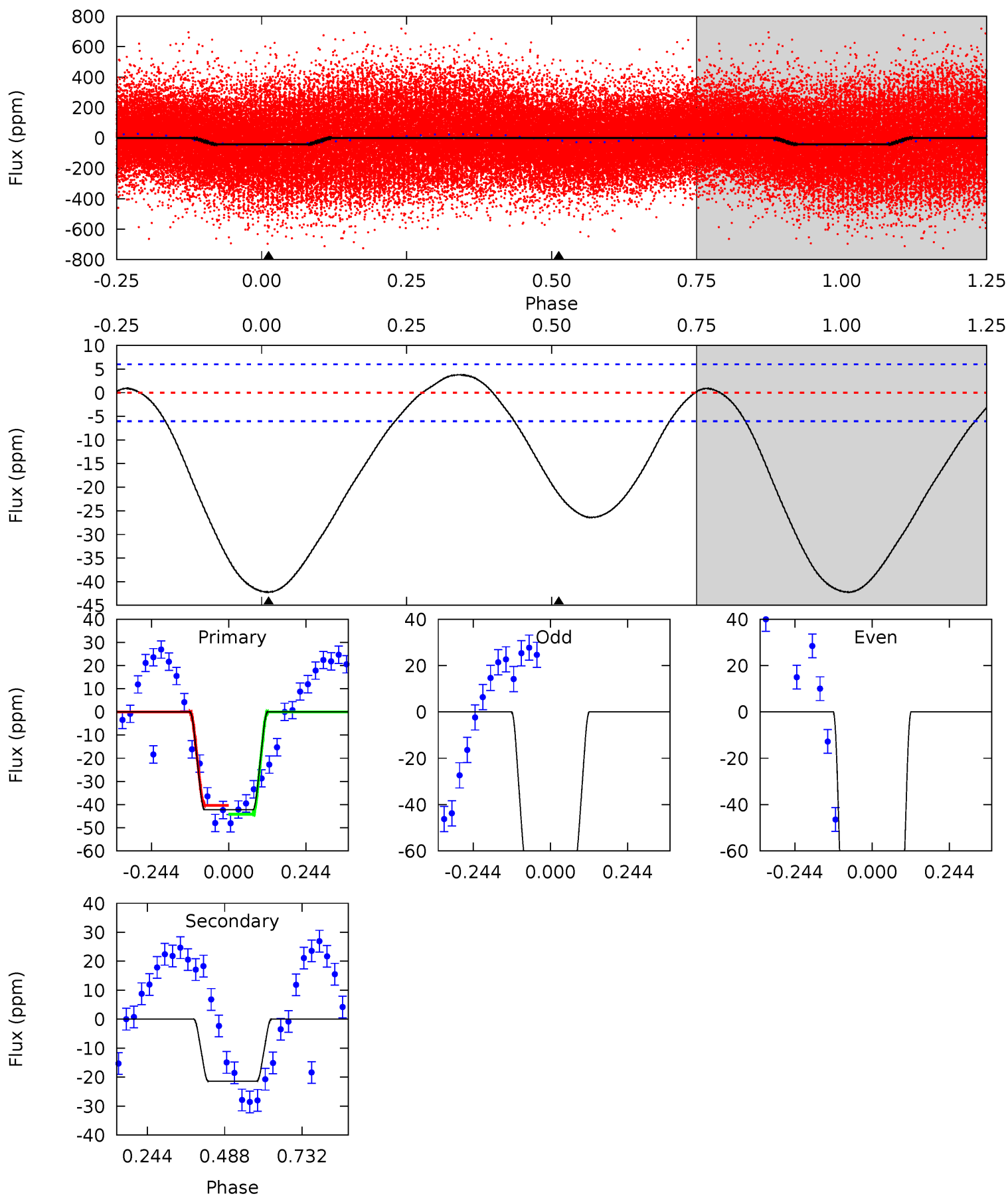
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	0.39	0	0	4.30	0.94	1.44	15.5	15.5	0.39	0.39	3.29	1.07	0.13	9.37



Alt Model-Shift Uniqueness Test

006141725-01, P = 0.610429 Days, E = 131.177644 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.7	15.6	0	0	4.37	1.17	1.24	30.7	30.7	15.6	15.6	34.5	1.09	0.08	1.39



Stellar Parameters For KIC 006141725

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6807^{+205}_{-205}	$3.530^{+0.384}_{-0.096}$	$-0.460^{+0.350}_{-0.250}$	$3.666^{+0.394}_{-1.577}$	$1.659^{+0.205}_{-0.410}$	$0.047^{+0.148}_{-0.014}$
	+3%/-3%	+11%/-3%	+76%/-54%	+11%/-43%	+12%/-25%	+311%/-30%
Source	PHO1	FLK73	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 006141725-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-0 ± 1	$1.29^{+0.87}_{-0.68}$	6136^{+345}_{-656}	-4927^{+976}_{-458}	$0.024^{+0.149}_{-0.071}$
Alt.	-21 ± 1	$2.49^{+1.03}_{-0.80}$	6132^{+370}_{-611}	4621^{+1516}_{-7990}	$0.512^{+0.635}_{-0.248}$

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 $A_{obs} \gg 1.0$

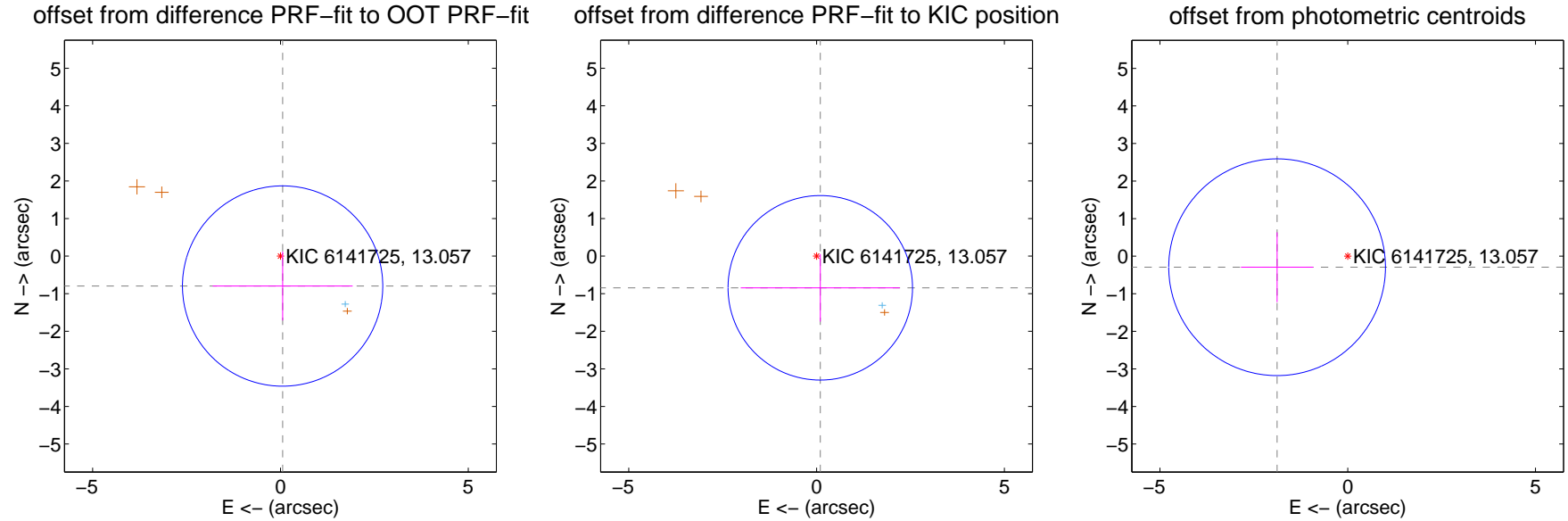
DV Centroid Data

Supplemental centroid analysis for 006141725-01. Kepler magnitude: 13.06. Transit SNR 9.56

There are 1 quarters with good PRF difference image offsets

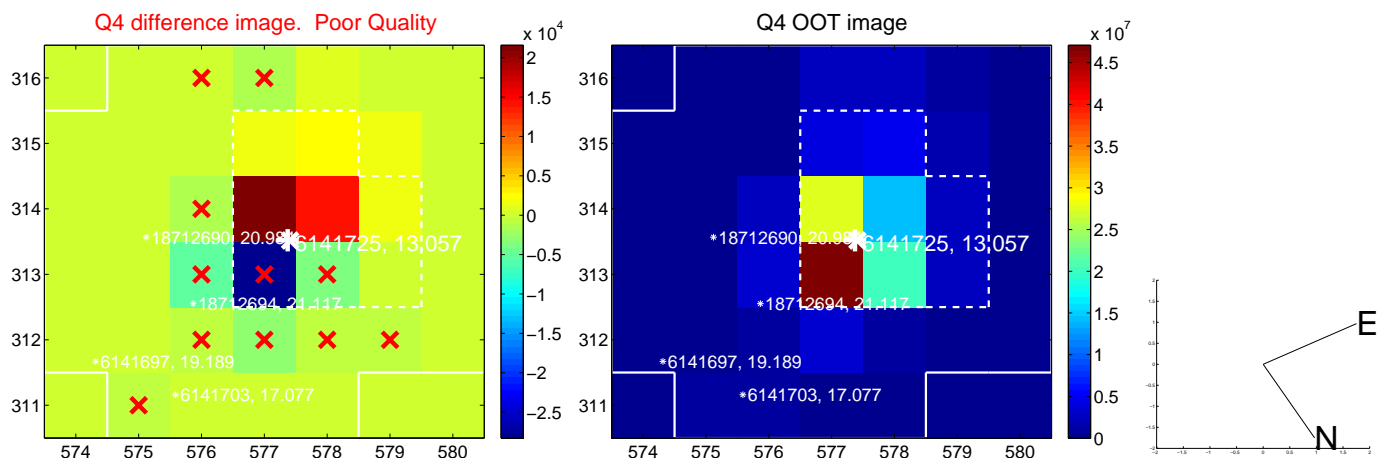
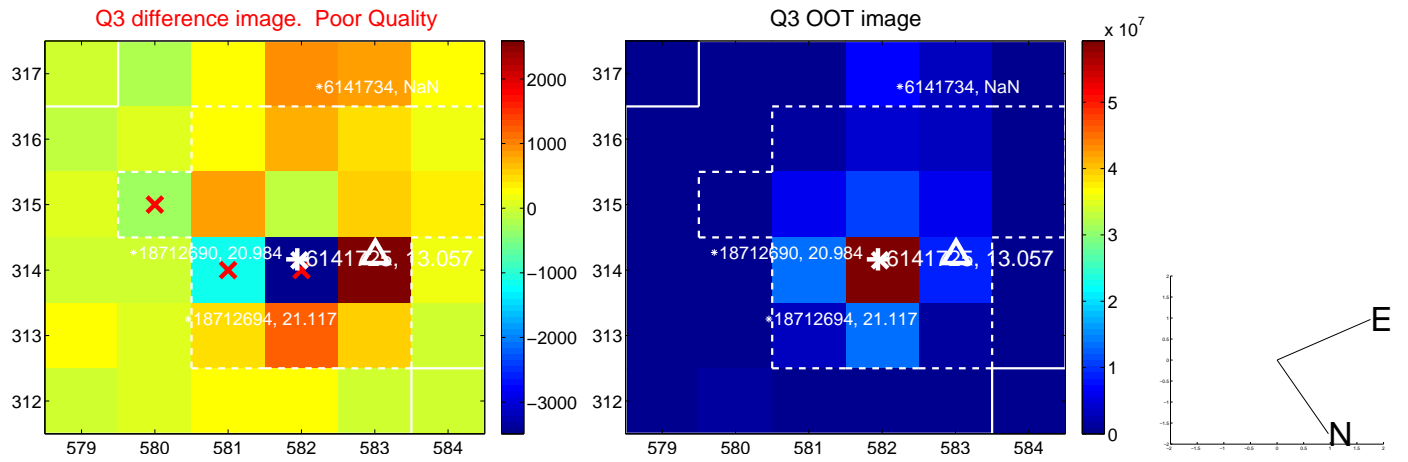
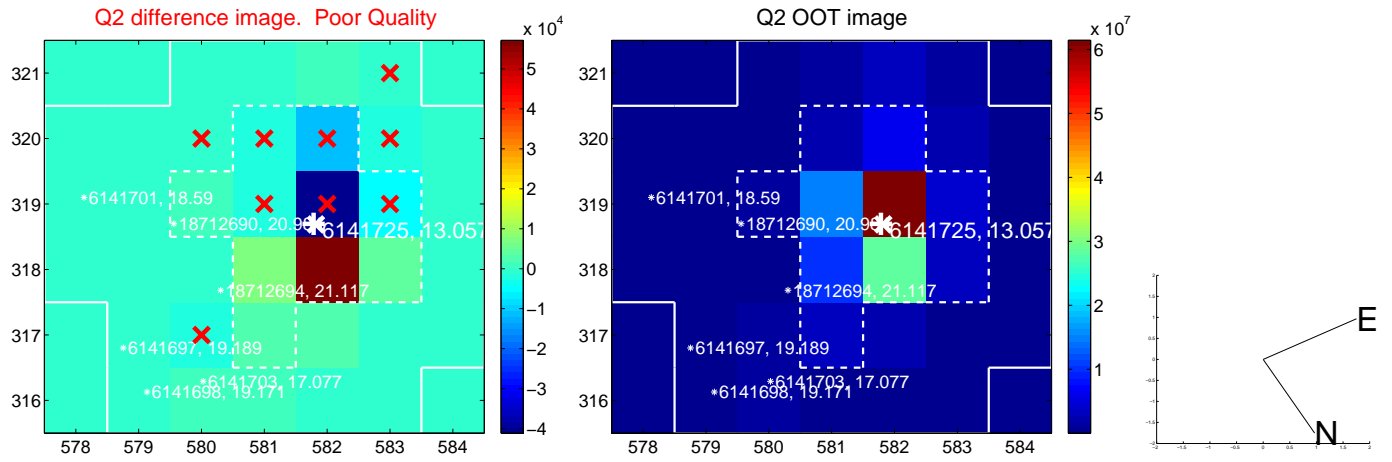
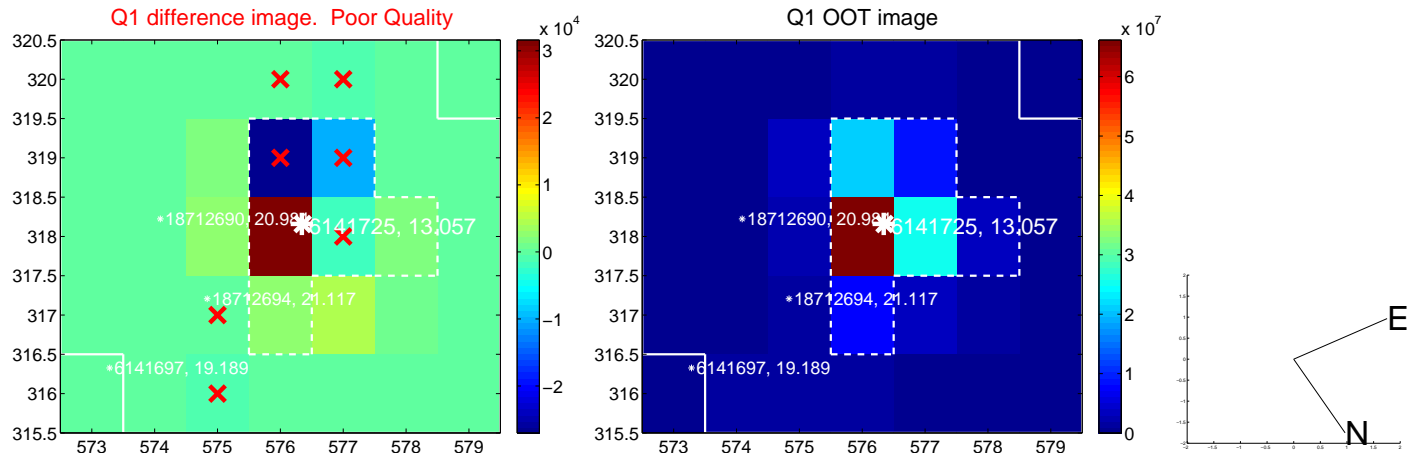
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.798 ± 0.888	0.90	-0.057 ± 1.863	-0.796 ± 0.917
PRF-fit source offset from KIC position	0.849 ± 0.818	1.04	-0.098 ± 2.117	-0.843 ± 0.899
photometric centroid source offset	1.90 ± 0.96	1.98	1.88 ± 0.96	-0.29 ± 0.93

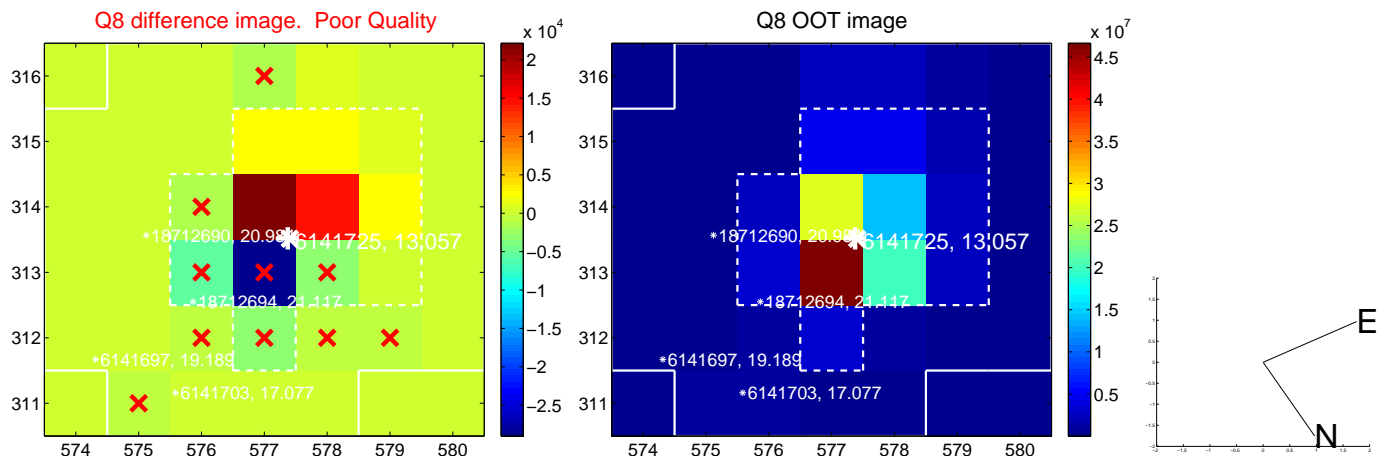
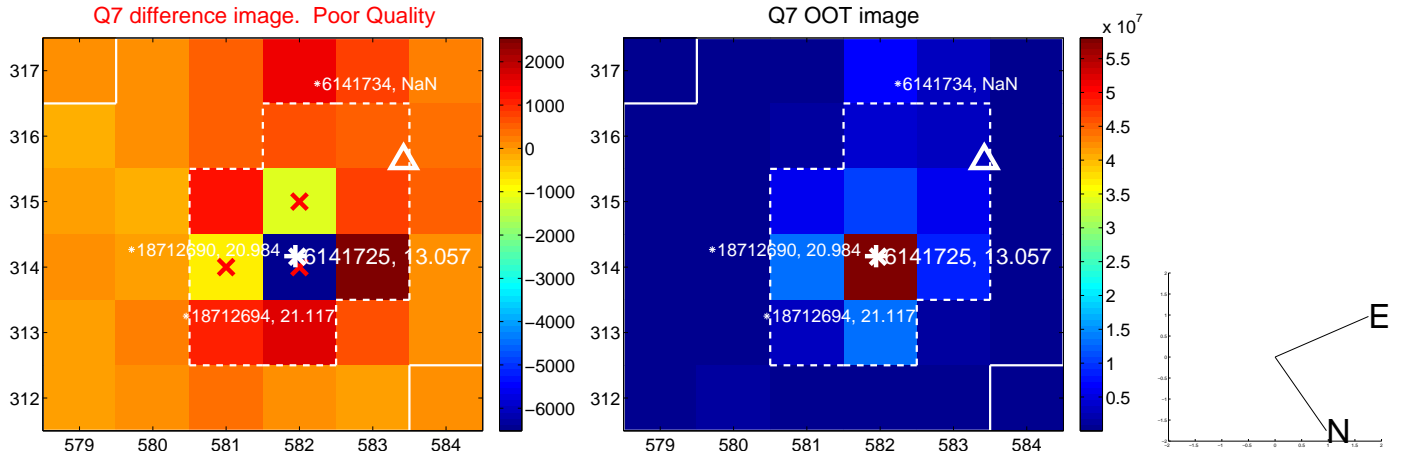
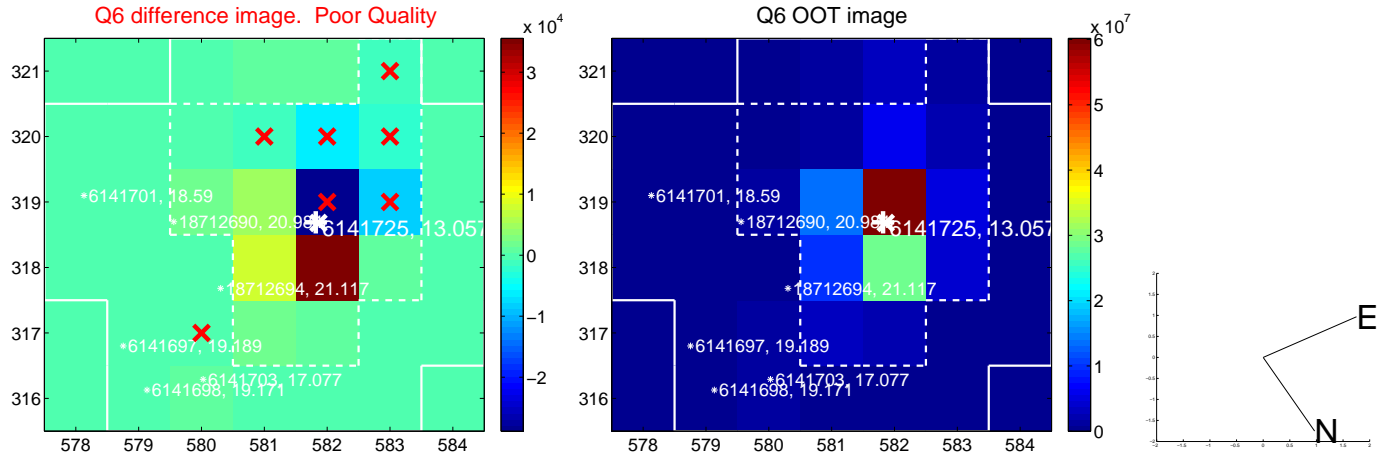
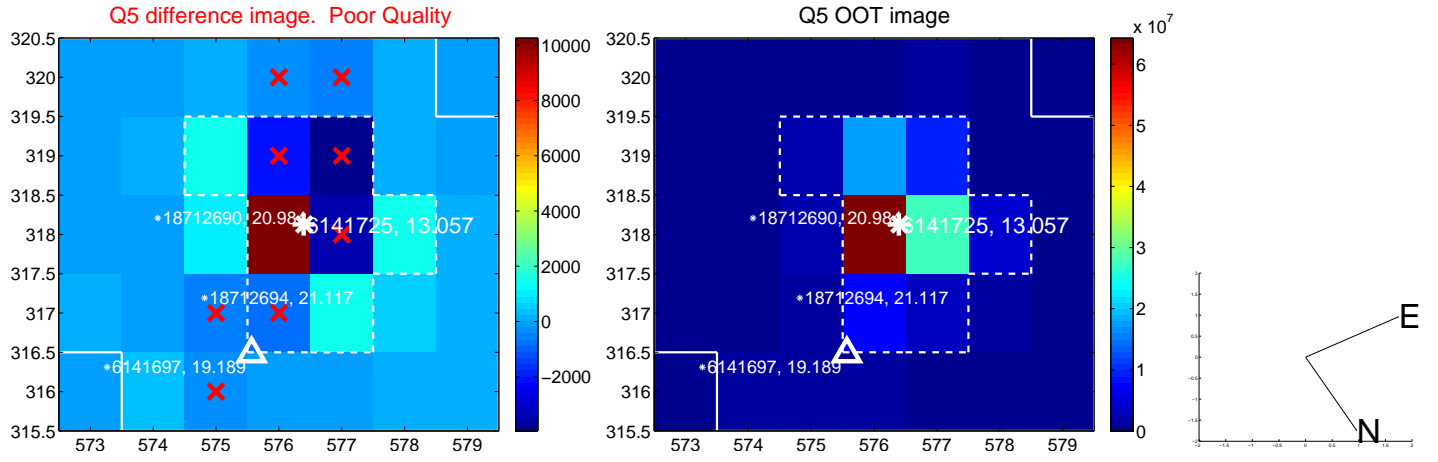


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

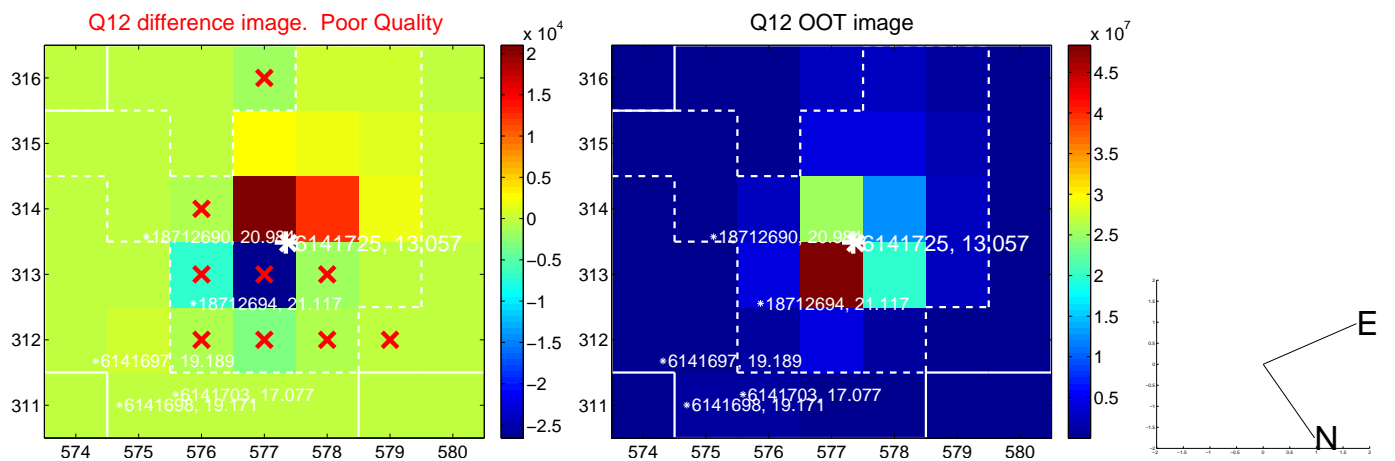
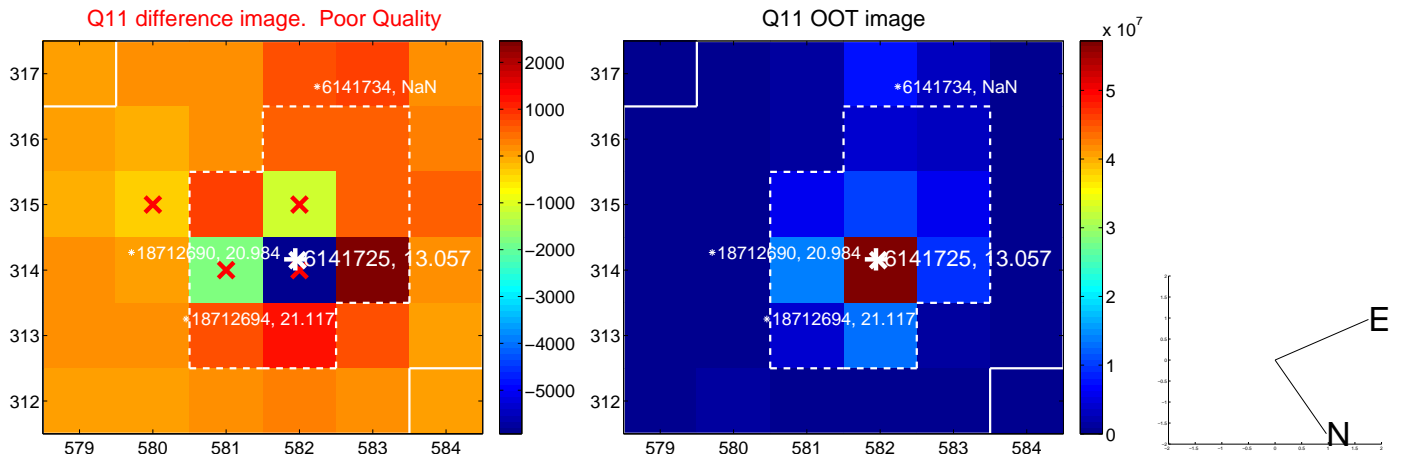
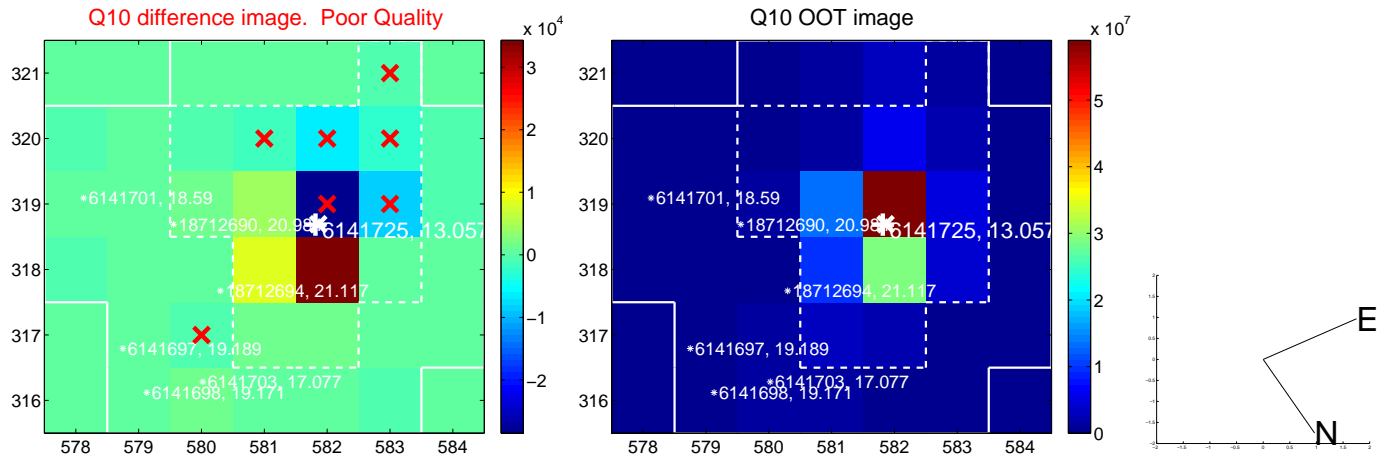
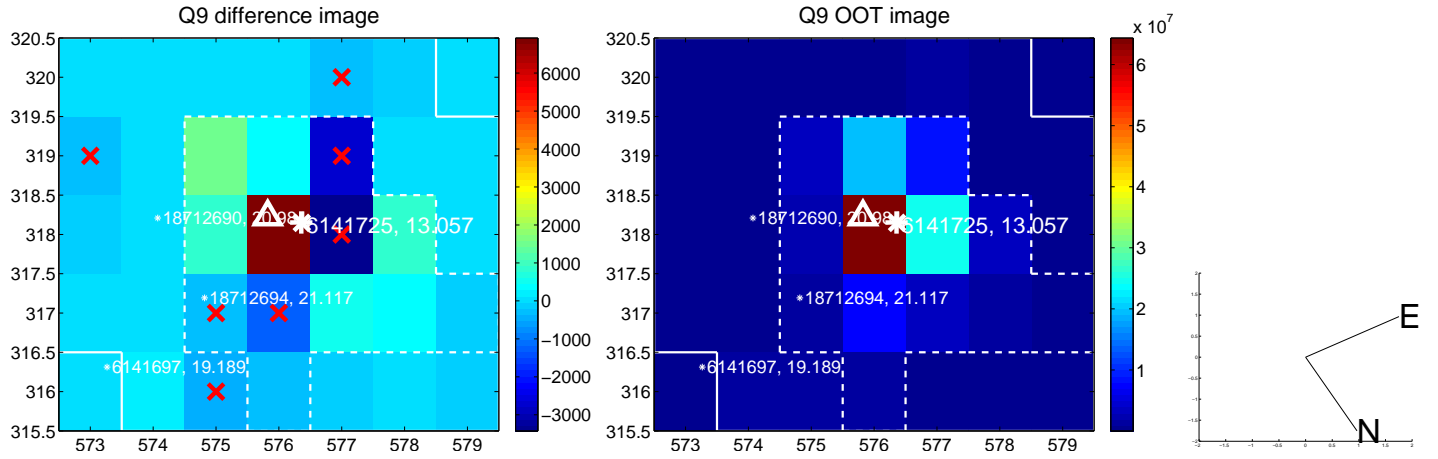
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



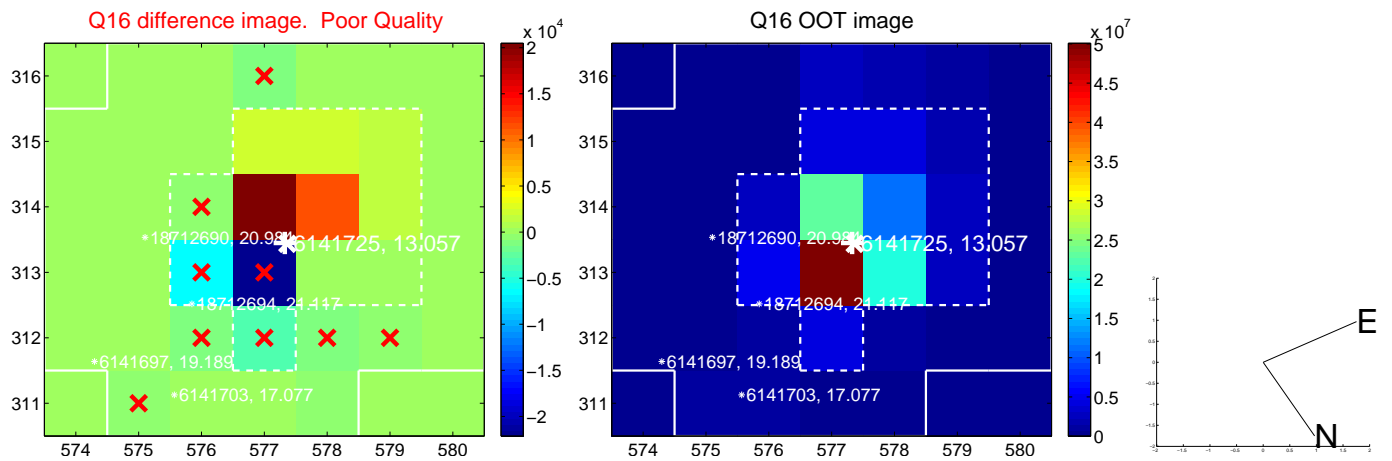
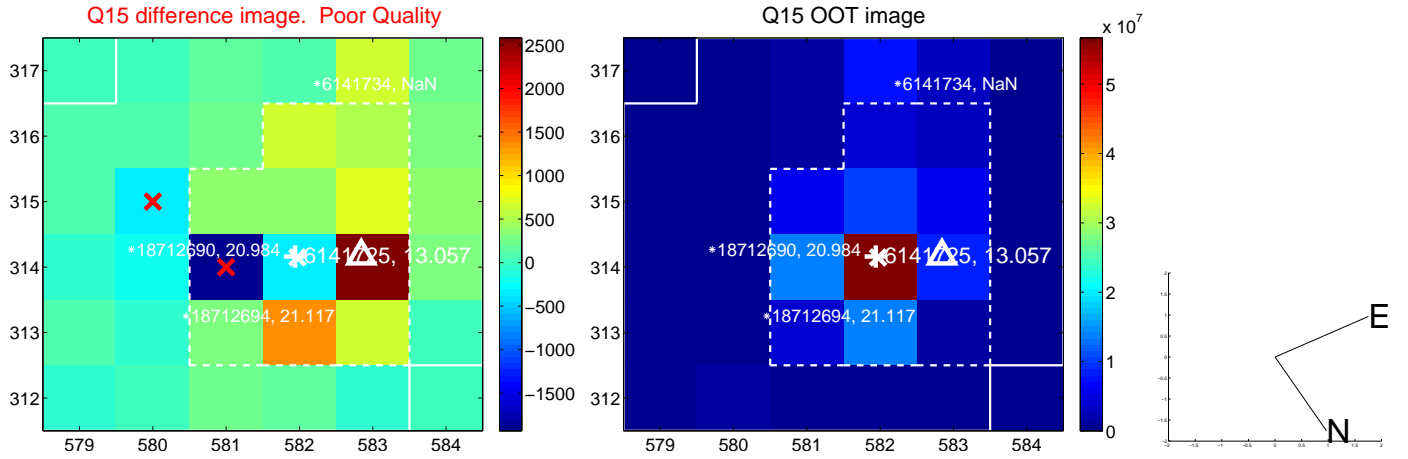
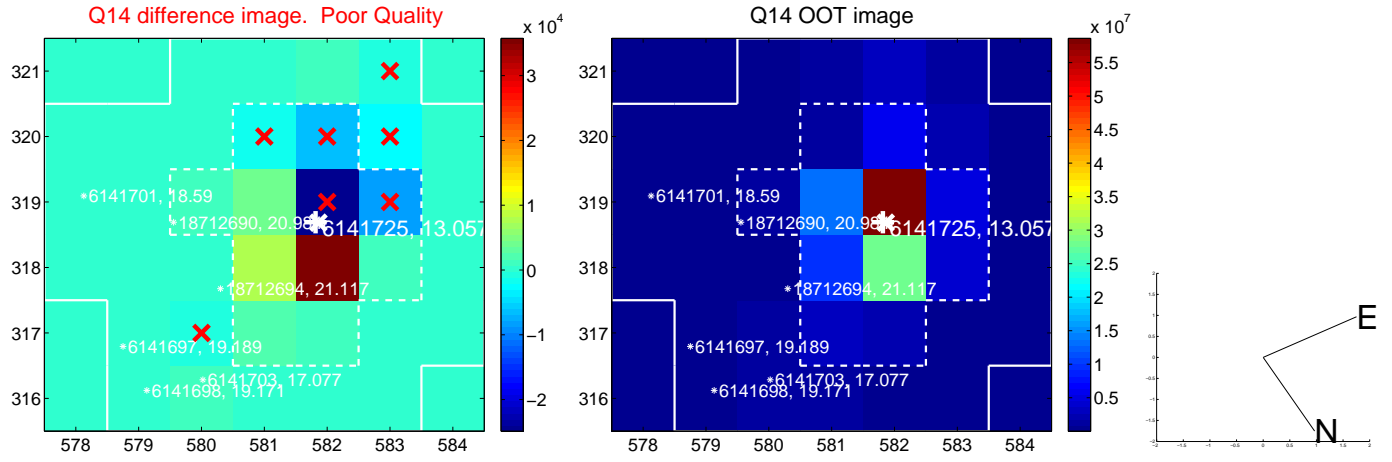
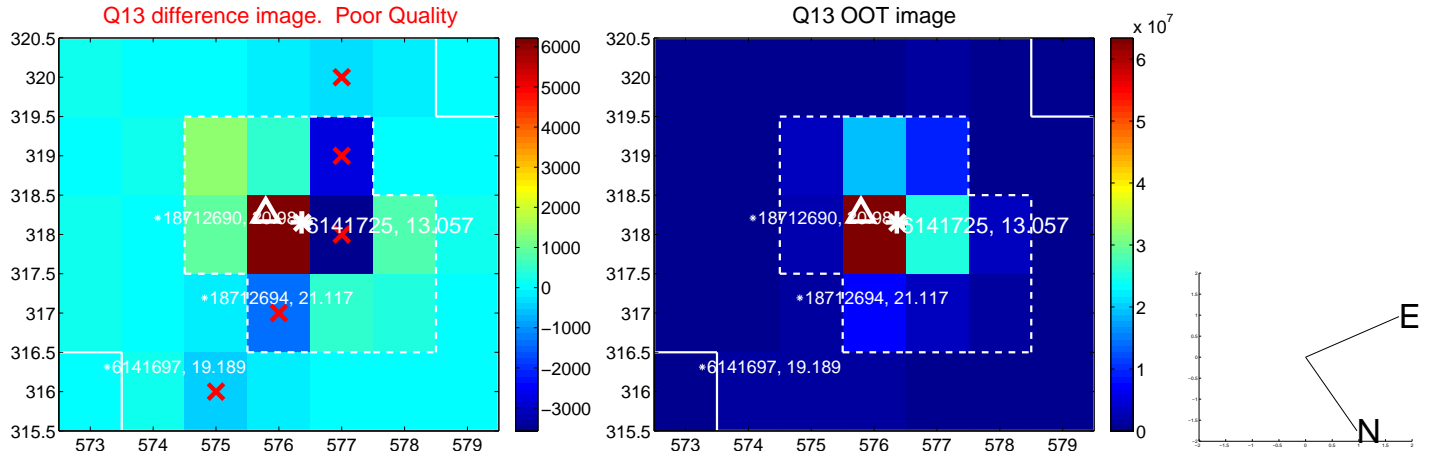
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



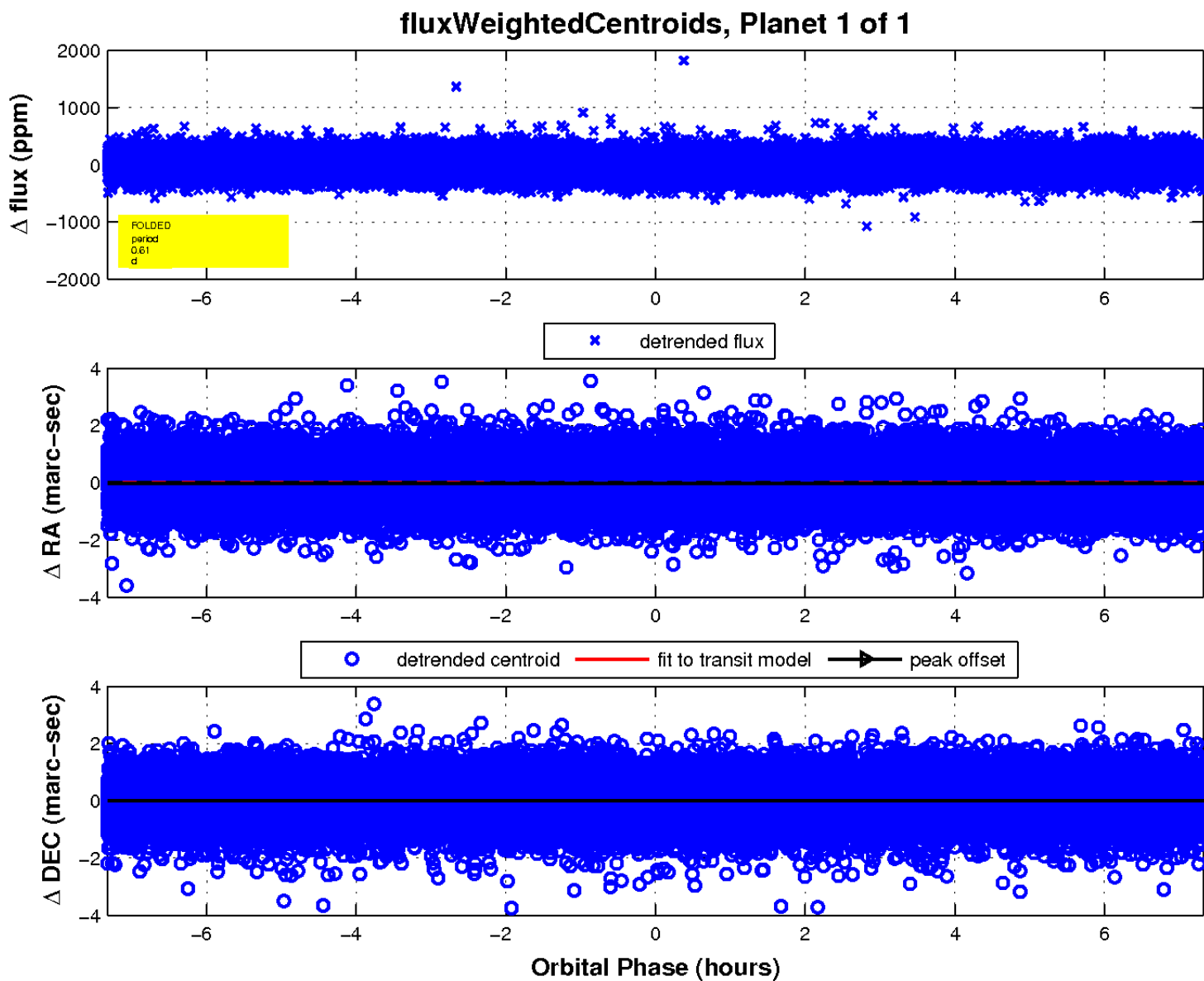
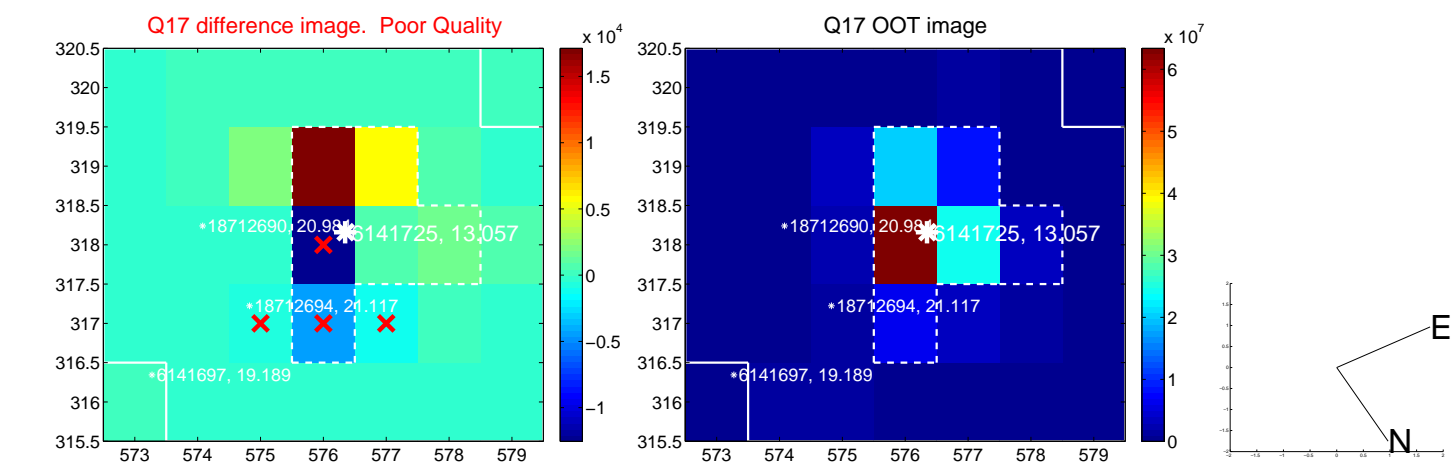
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

