

KIC 010735519

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})
010735519-01	OBS	6082.01	0.907079	131.935186	329.6	2.576	64.0	86.8	12.90	4822	28.79	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010735519-01	OBS	FP	0.00	0	1	0	0	PLANET_IN_STAR—MOD_ODDEVEN_DV—MOD_ODDEVEN_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 010735519-01

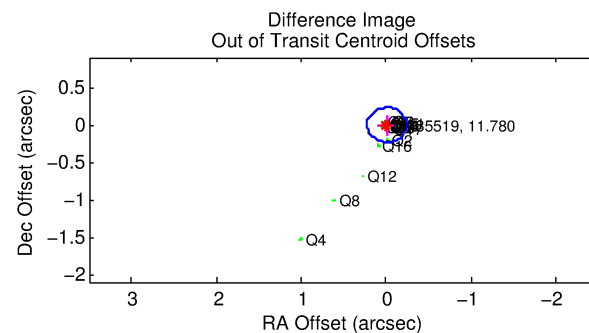
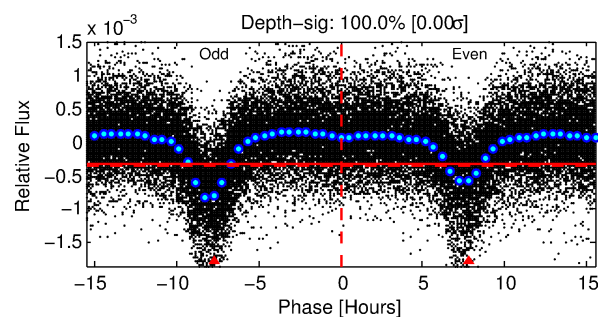
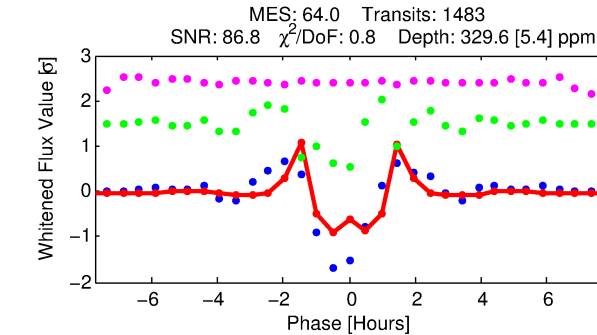
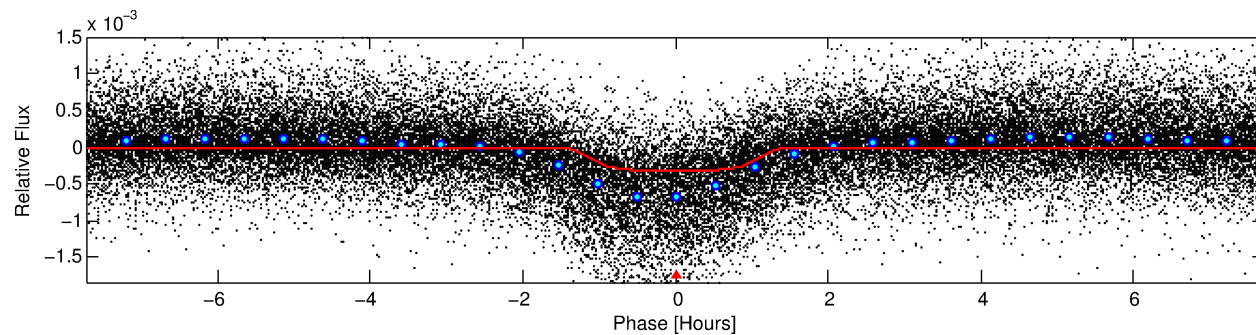
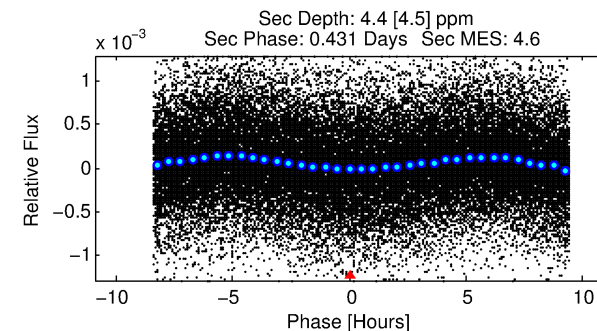
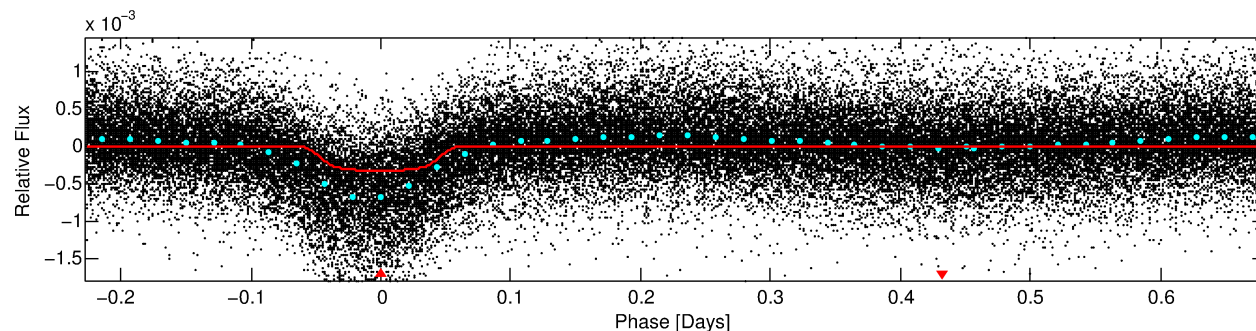
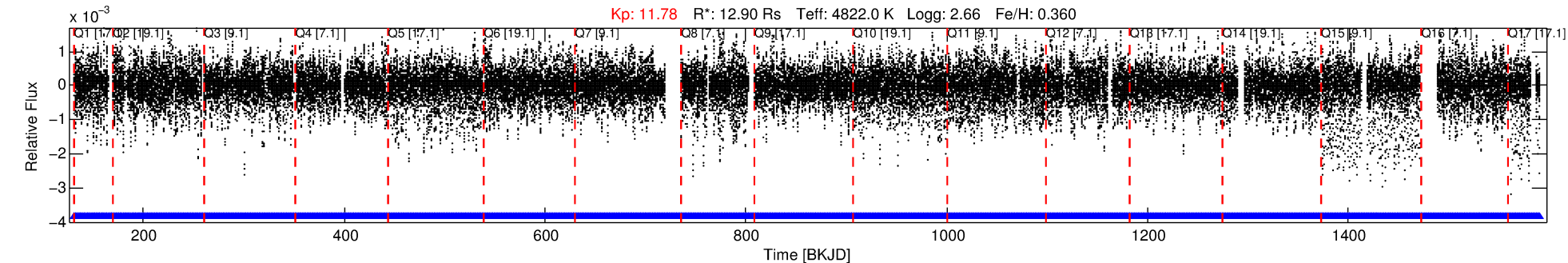
No Significant Match Found

DV One-Page Summary

KIC: 10735519 Candidate: 1 of 1 Period: 0.907 d

KOI: K06082 Corr: No Ephemeris Match

Kp: 11.78 R*: 12.90 Rs Teff: 4822.0 K Logg: 2.66 Fe/H: 0.360



DV Fit Results:

Period = 0.90708 [0.00000] d
Epoch = 131.9352 [0.0001] BKJD
Rp/R* = 0.0205 [0.0005]
a/R* = 1.60 [0.08]
b = 0.90 [0.02]
Seff = N/A
Teq = N/A
Rp = 28.79 [10.99] Re
a = N/A
Ag = N/A
Teffp = N/A

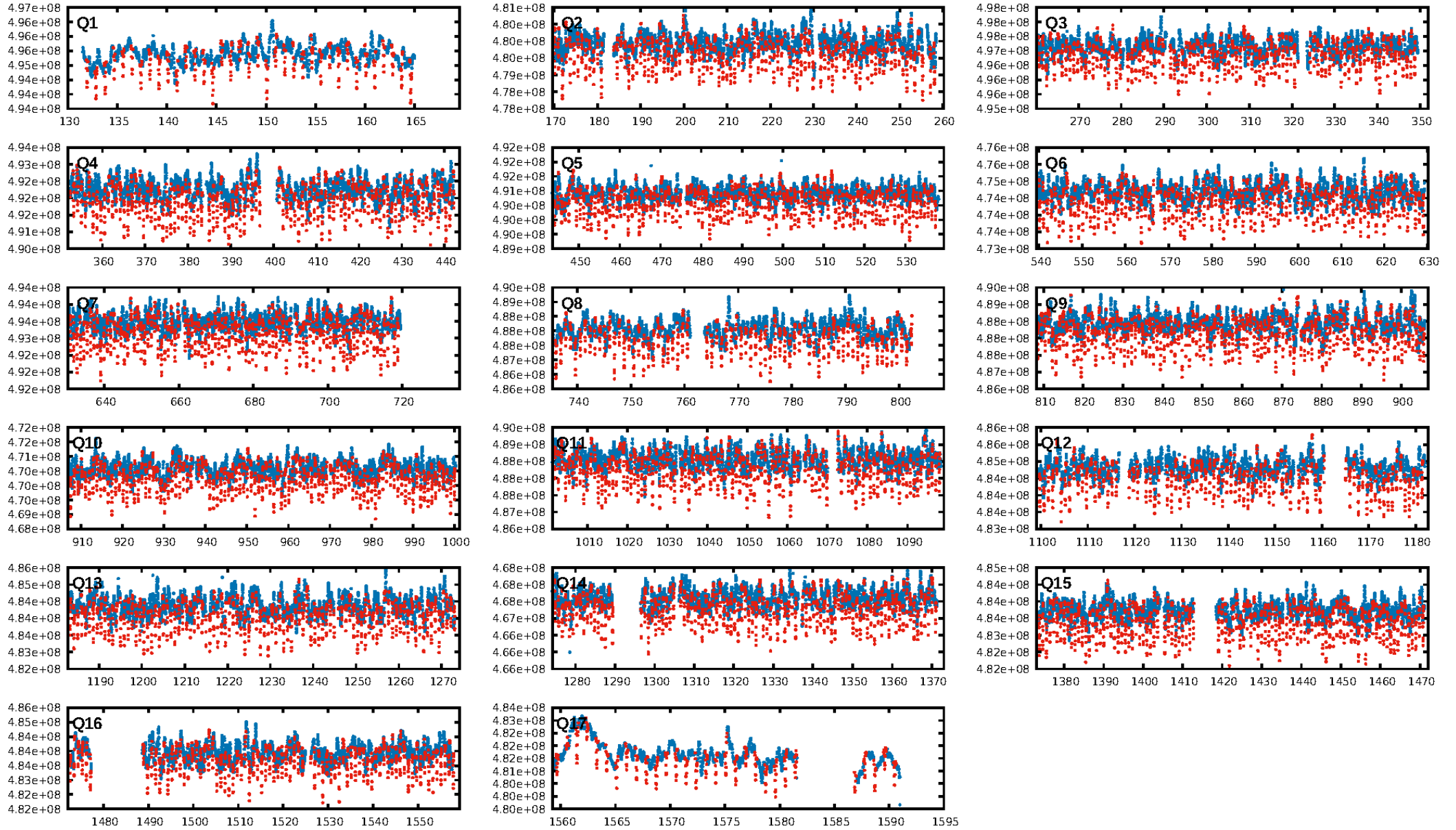
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [1416/1416]
GhostDiagnostic-chr: 2.314
Centroid-sig: 1.7%
Centroid-so: 0.139 arcsec [4.90σ]
OotOffset-rm: 0.009 arcsec [0.11σ]
KicOffset-rm: 0.165 arcsec [1.61σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

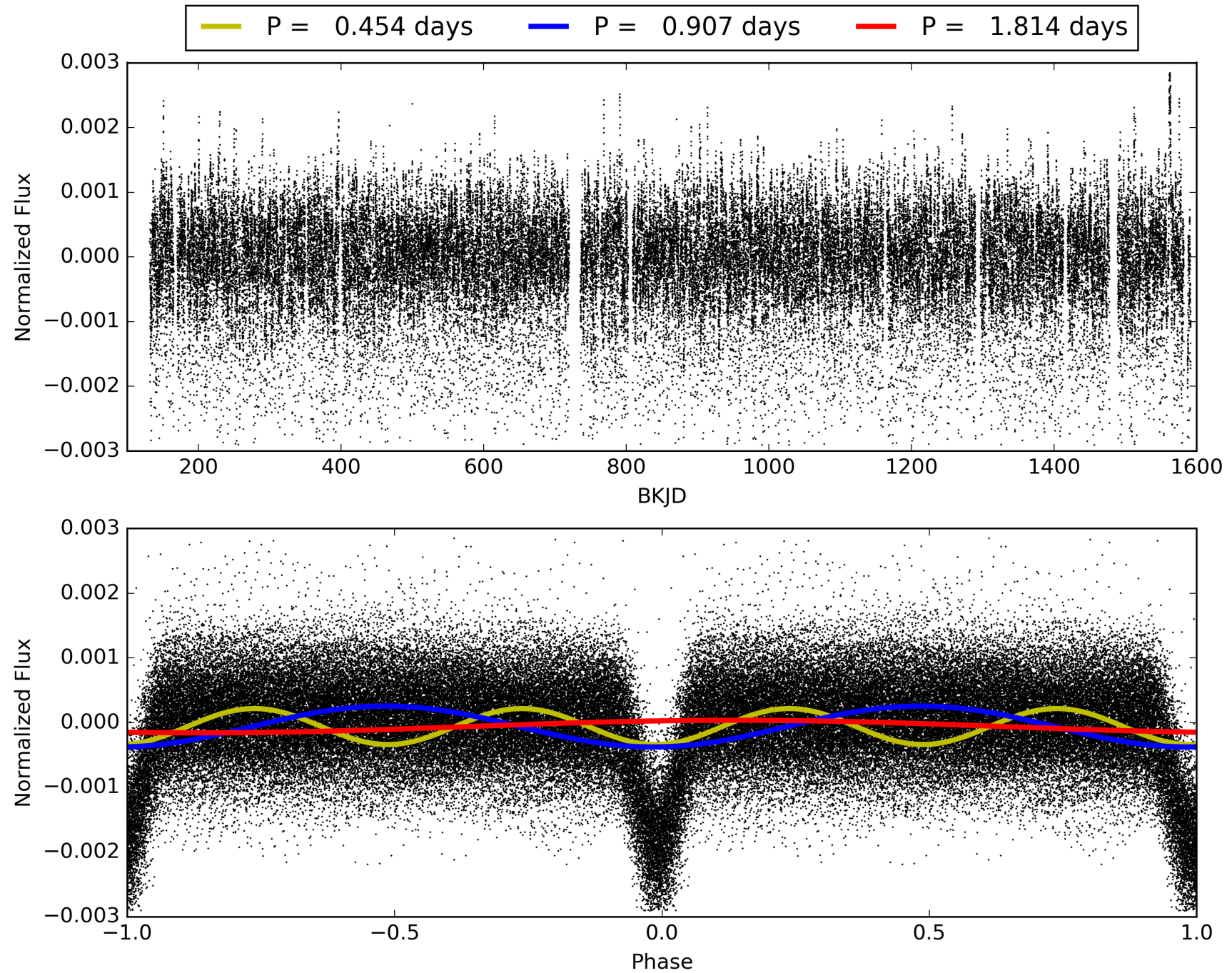
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:44:08 Z

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

TCE 010735519-01, PDC Light Curves

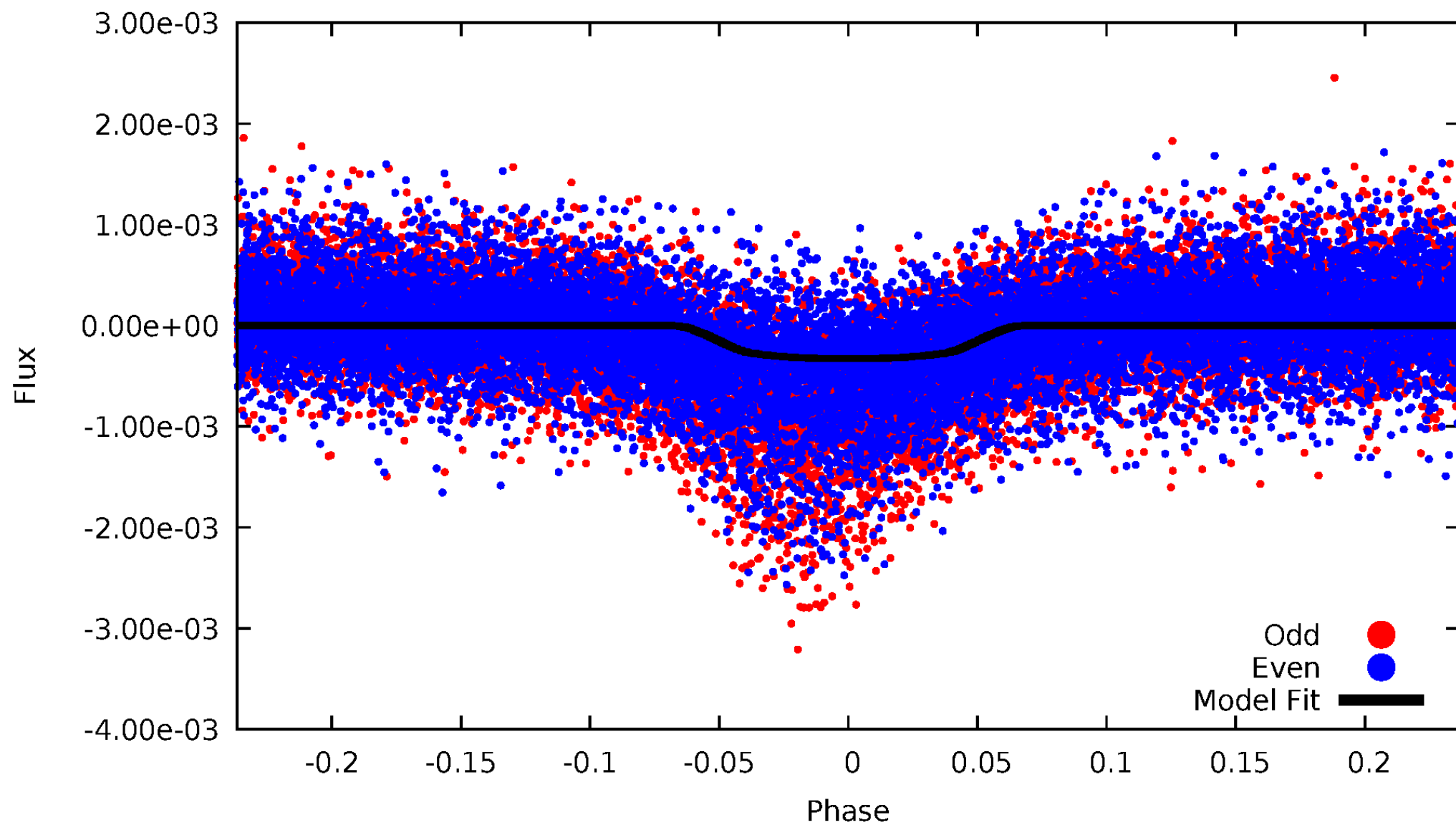


TCE 010735519-01



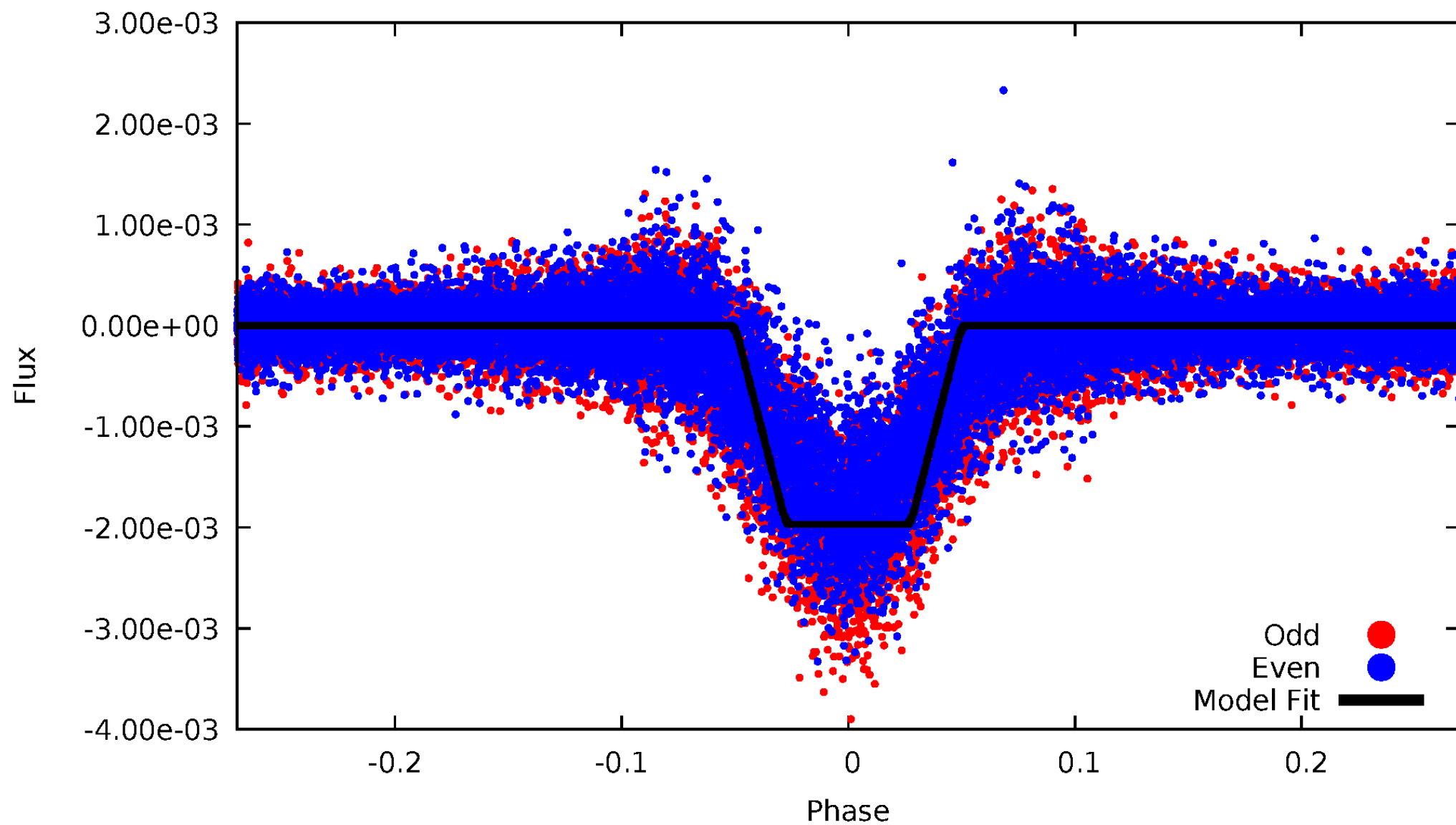
DV Odd/Even

TCE 010735519-01

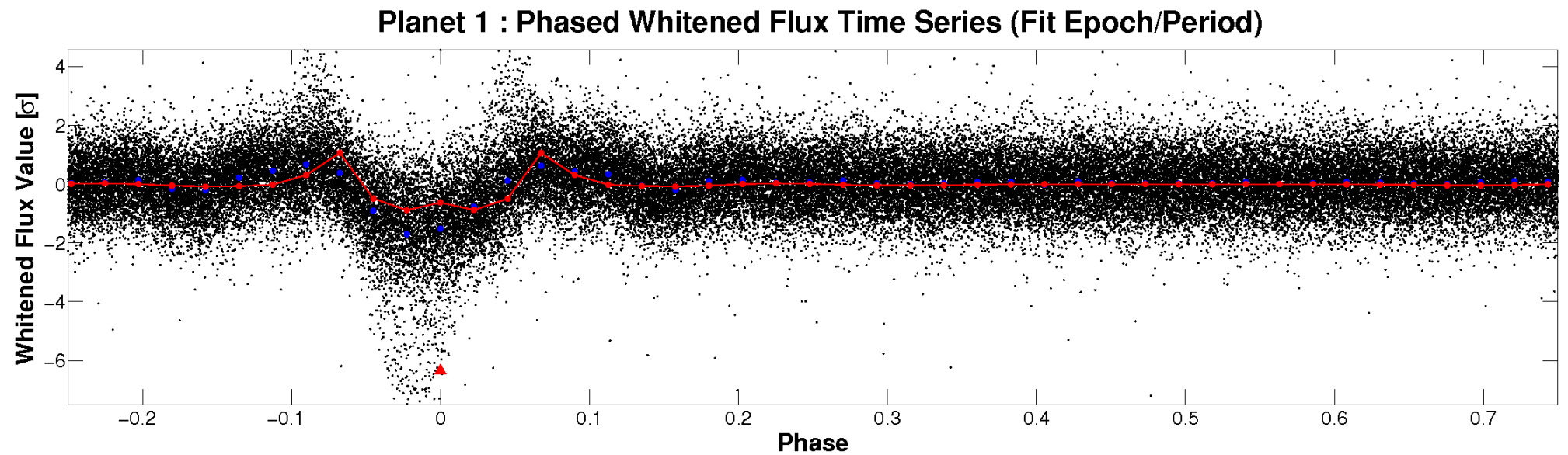
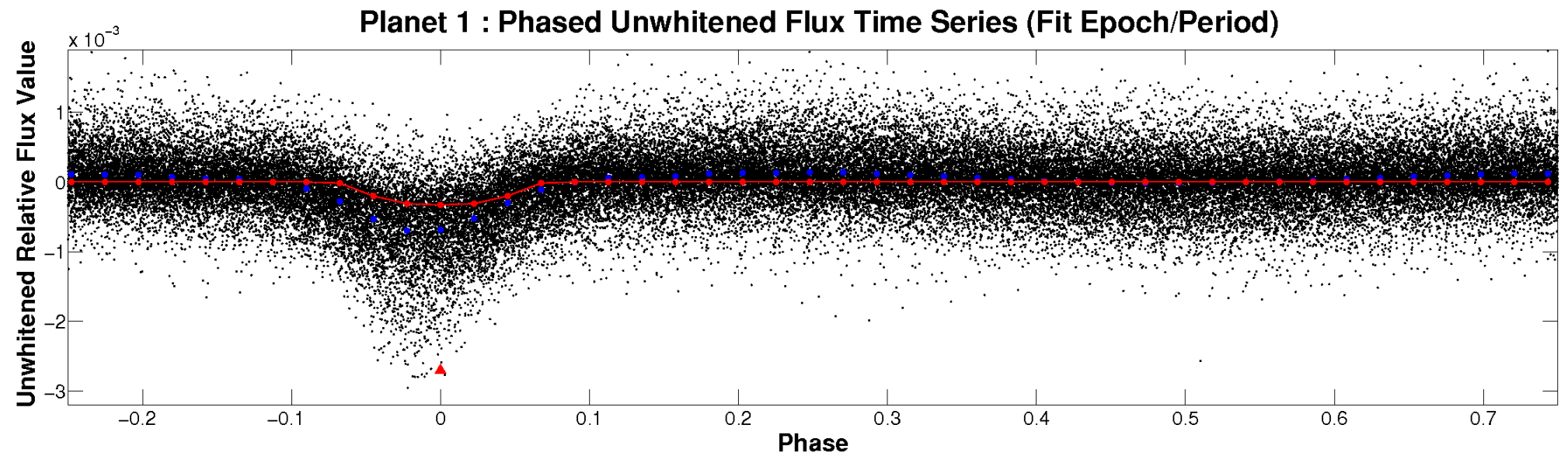


ALT Odd/Even

TCE 010735519-01

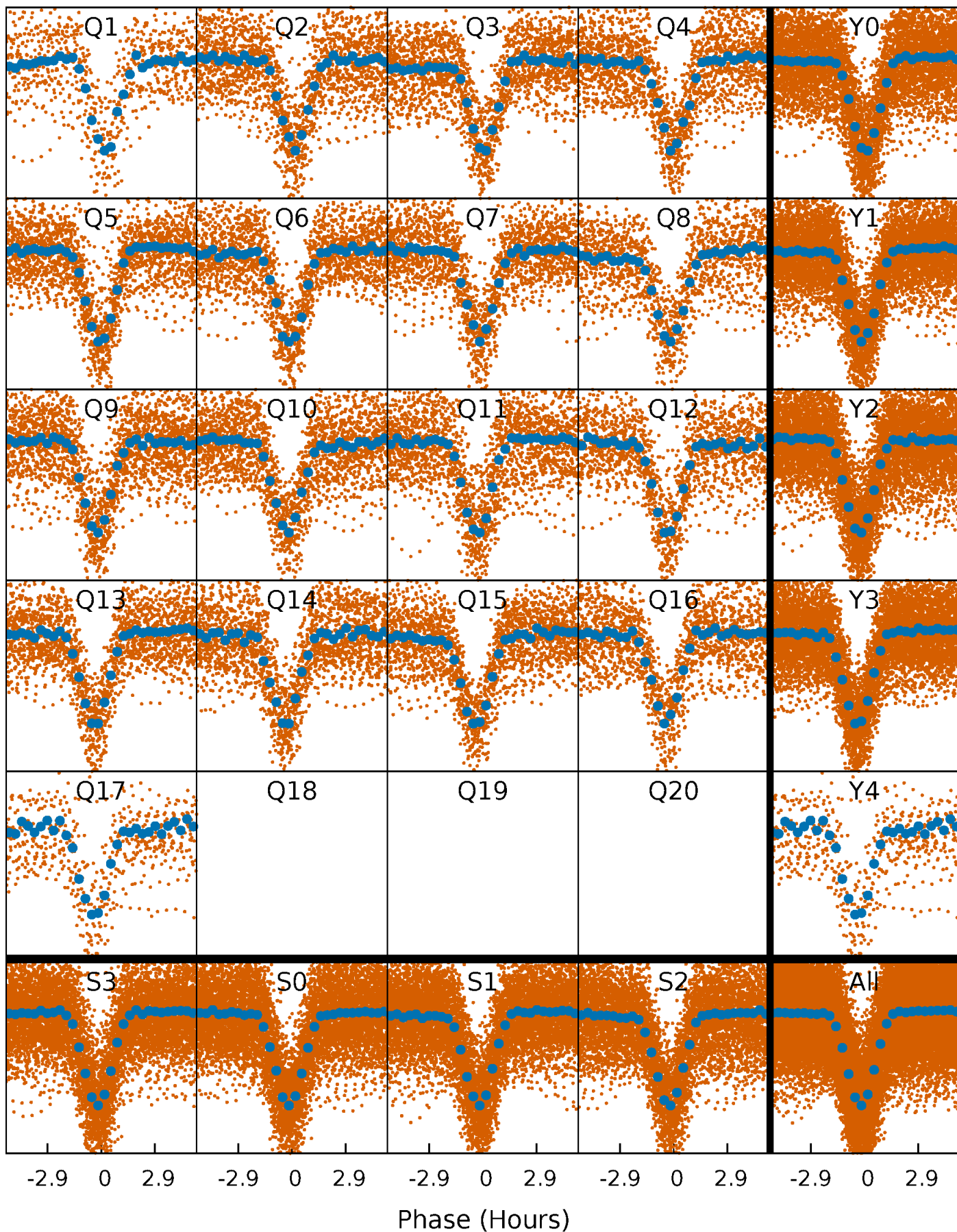


Non-Whitened Vs. Whitened Light Curve



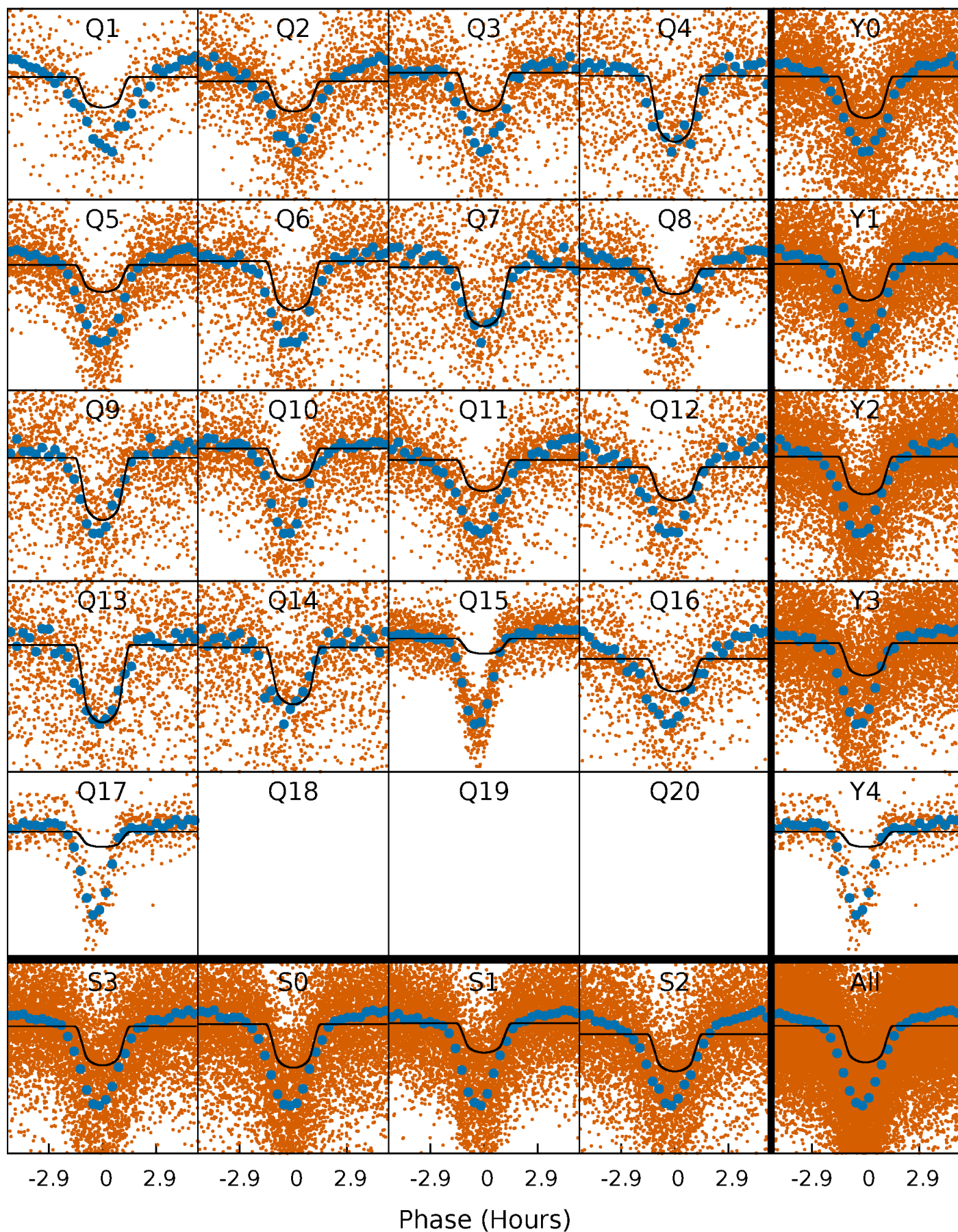
PDC Quarter-Phased Transit Curves

TCE 010735519-01 P= 0.907079 Days $T_0=131.935186$ (BKJD)



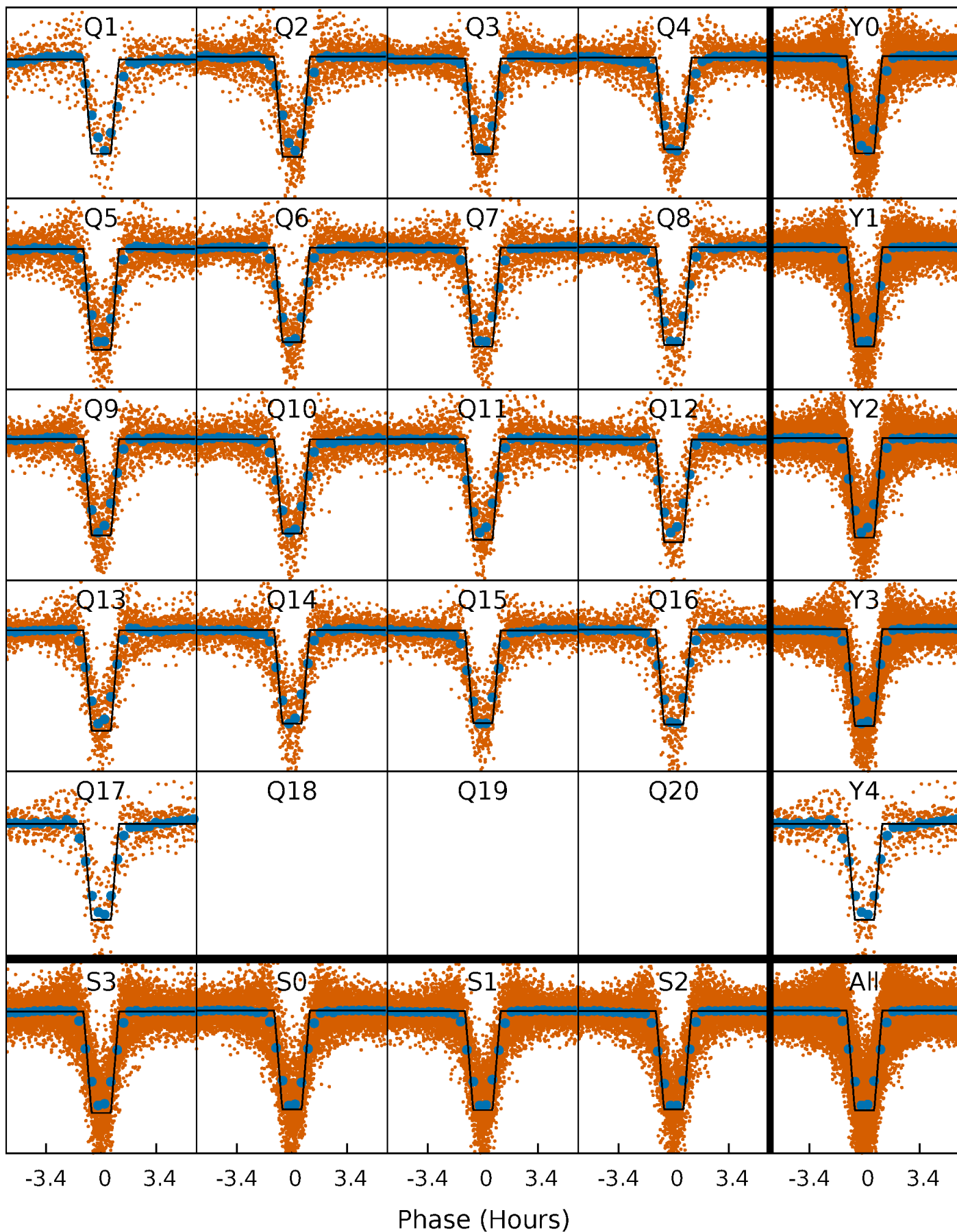
DV Quarter-Phased Transit Curves

TCE 010735519-01 P= 0.907079 Days $T_0=131.935186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

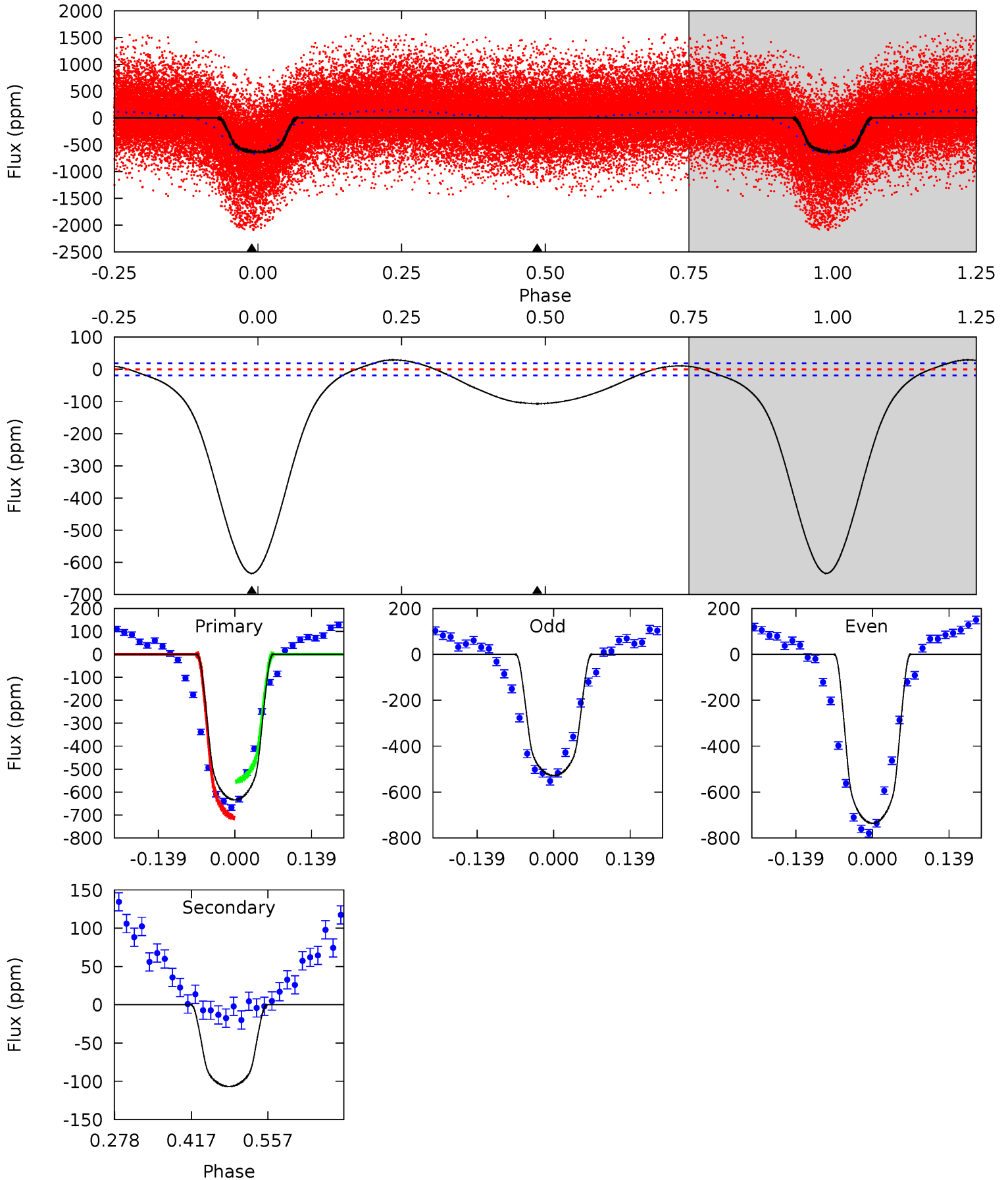
TCE 010735519-01 P= 0.907067 Days $T_0=131.936572$ (BKJD)



DV Model-Shift Uniqueness Test

010735519-01, P = 0.907079 Days, E = 131.028107 Days

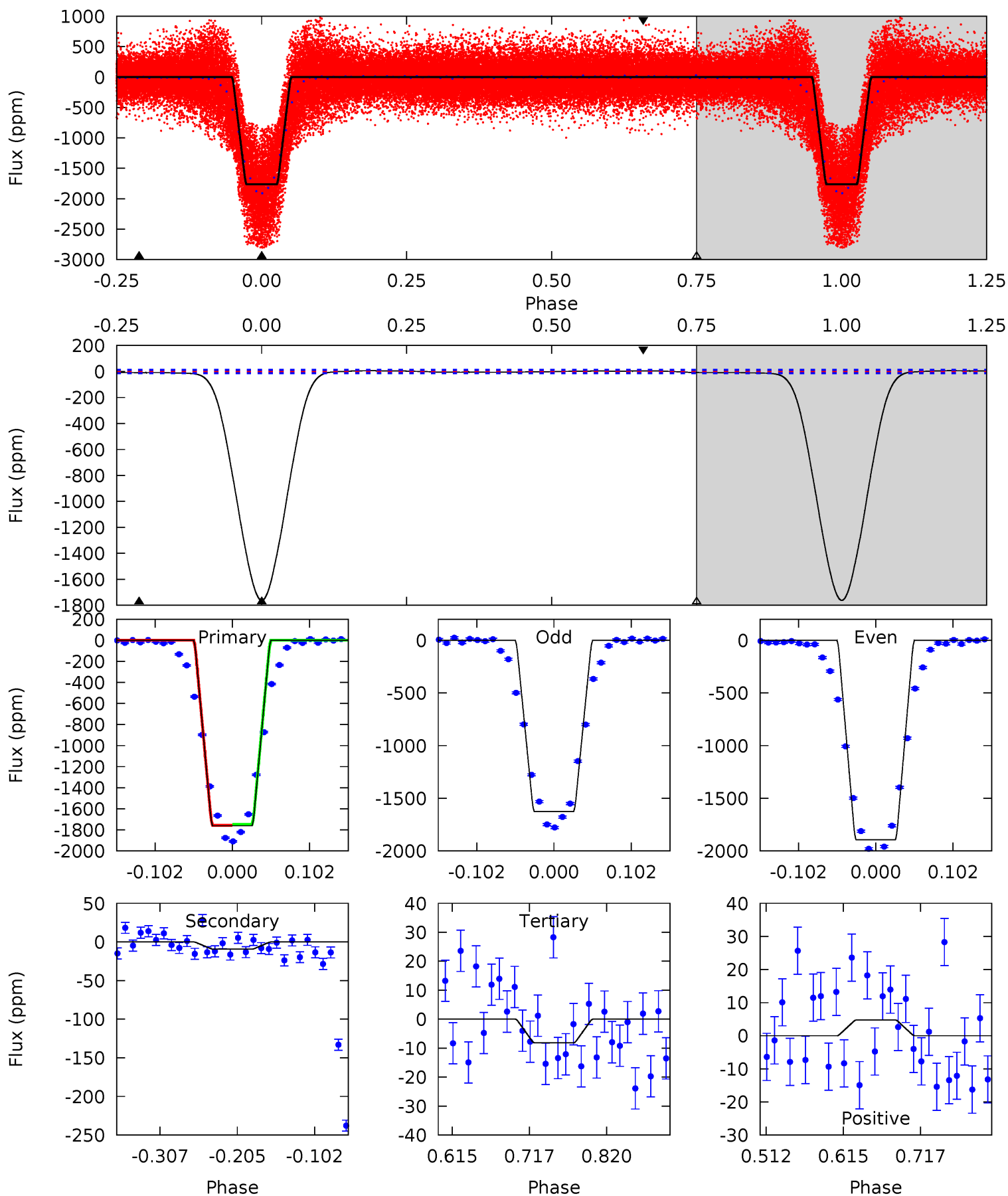
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
149.7	25.2	0	0	4.49	1.48	5.05	149.7	149.7	25.2	25.2	24.6	1.15	0.04	18.7



Alt Model-Shift Uniqueness Test

010735519-01, P = 0.907067 Days, E = 131.029505 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
629.5	3.32	2.92	1.70	4.56	1.63	1.96	626.5	627.8	0.40	1.62	47.7	1.00	0.00	2.01



Stellar Parameters For KIC 010735519

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4822^{+38}_{-115}	$2.662^{+0.174}_{-0.116}$	$0.360^{+0.100}_{-0.200}$	$12.899^{+2.647}_{-4.915}$	$2.785^{+0.304}_{-1.215}$	$0.002^{+0.002}_{-0.001}$
	+1%/-2%	+7%/-4%	+28%/-56%	+21%/-38%	+11%/-44%	+133%/-36%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 010735519-01 / KOI 6082.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-107 ± 4	$29.05^{+3.13}_{-5.27}$	6594^{+350}_{-451}	-5107^{+357}_{-286}	$0.048^{+0.016}_{-0.009}$
Alt.	-9 ± 3	$63.41^{+6.81}_{-11.64}$	6633^{+328}_{-467}	-5329^{+327}_{-244}	$0.001^{+0.000}_{-0.000}$

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 $A_{obs} \gg 1.0$

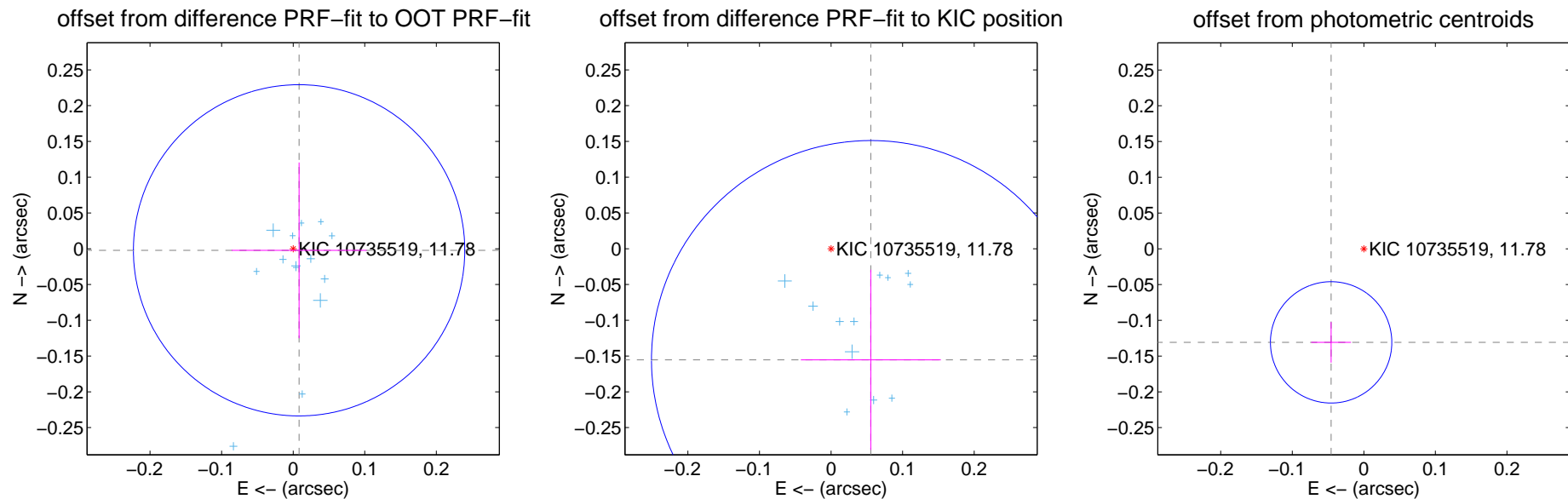
DV Centroid Data

Supplemental centroid analysis for 010735519-01. **Kepler magnitude: 11.78.** Transit SNR 86.79

There are 17 quarters with good PRF difference image offsets

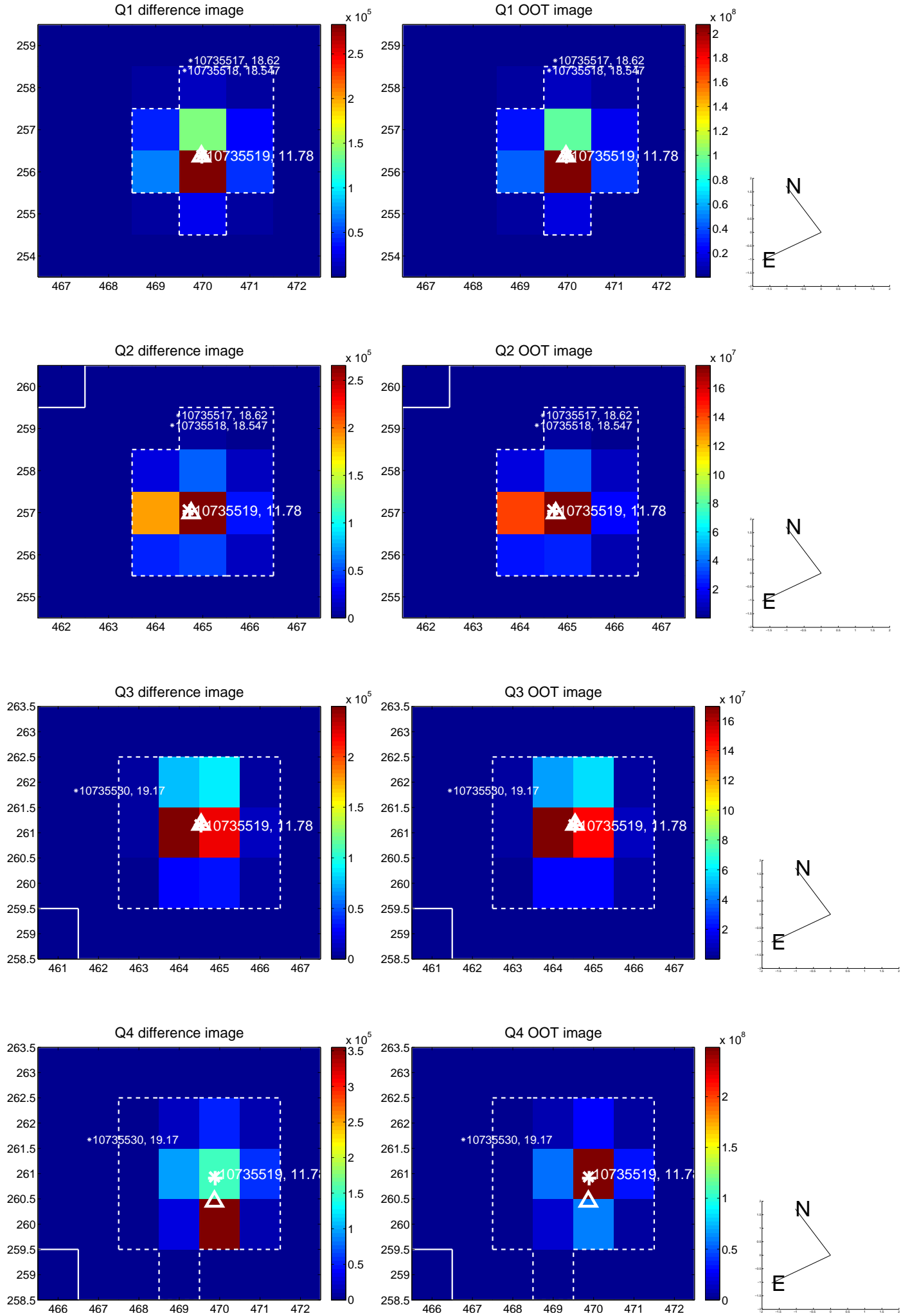
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.009 ± 0.077	0.11	-0.008 ± 0.094	-0.002 ± 0.123
PRF-fit source offset from KIC position	0.165 ± 0.102	1.61	-0.056 ± 0.098	-0.155 ± 0.126
photometric centroid source offset	0.14 ± 0.03	4.90	0.05 ± 0.03	-0.13 ± 0.03

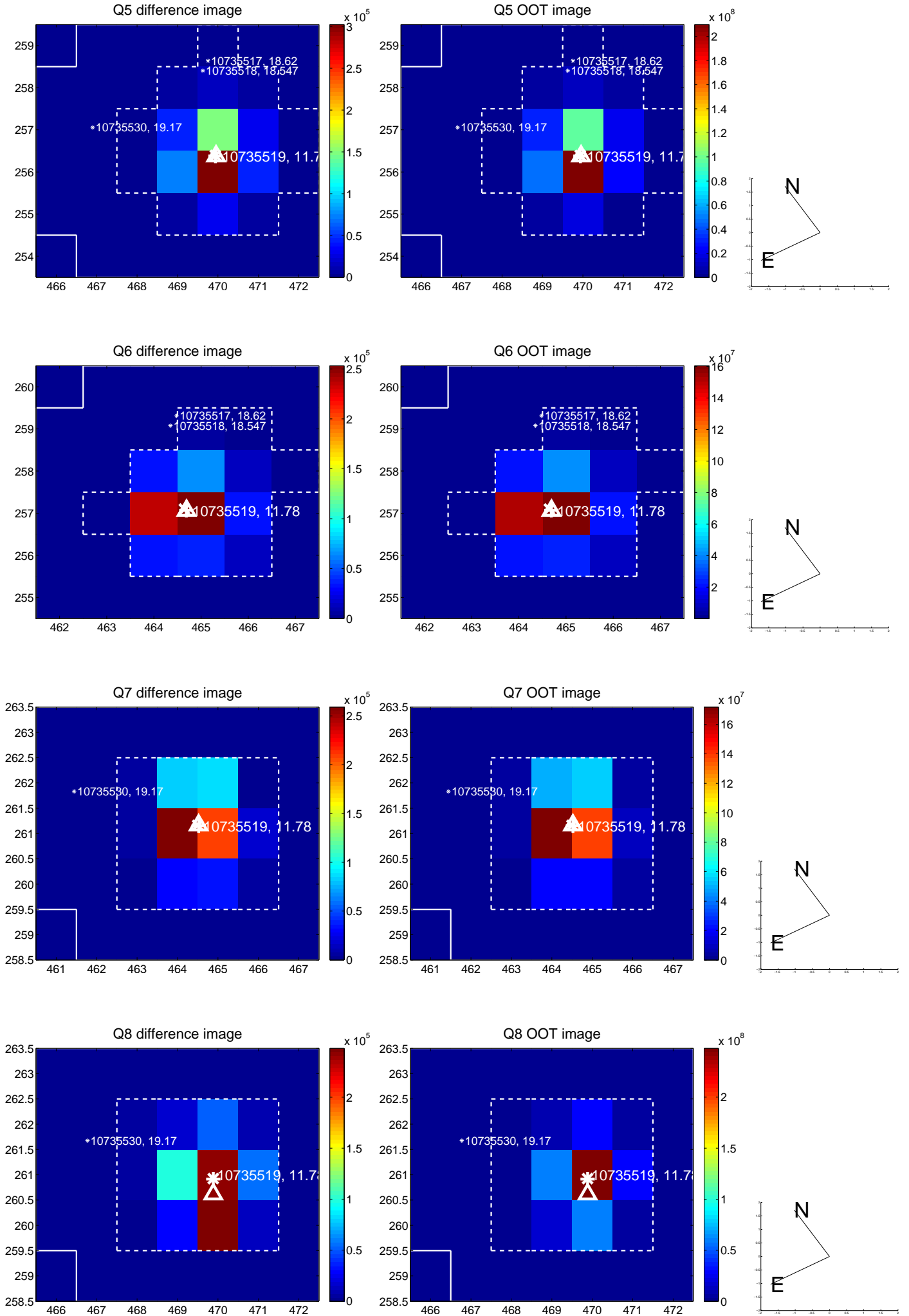


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

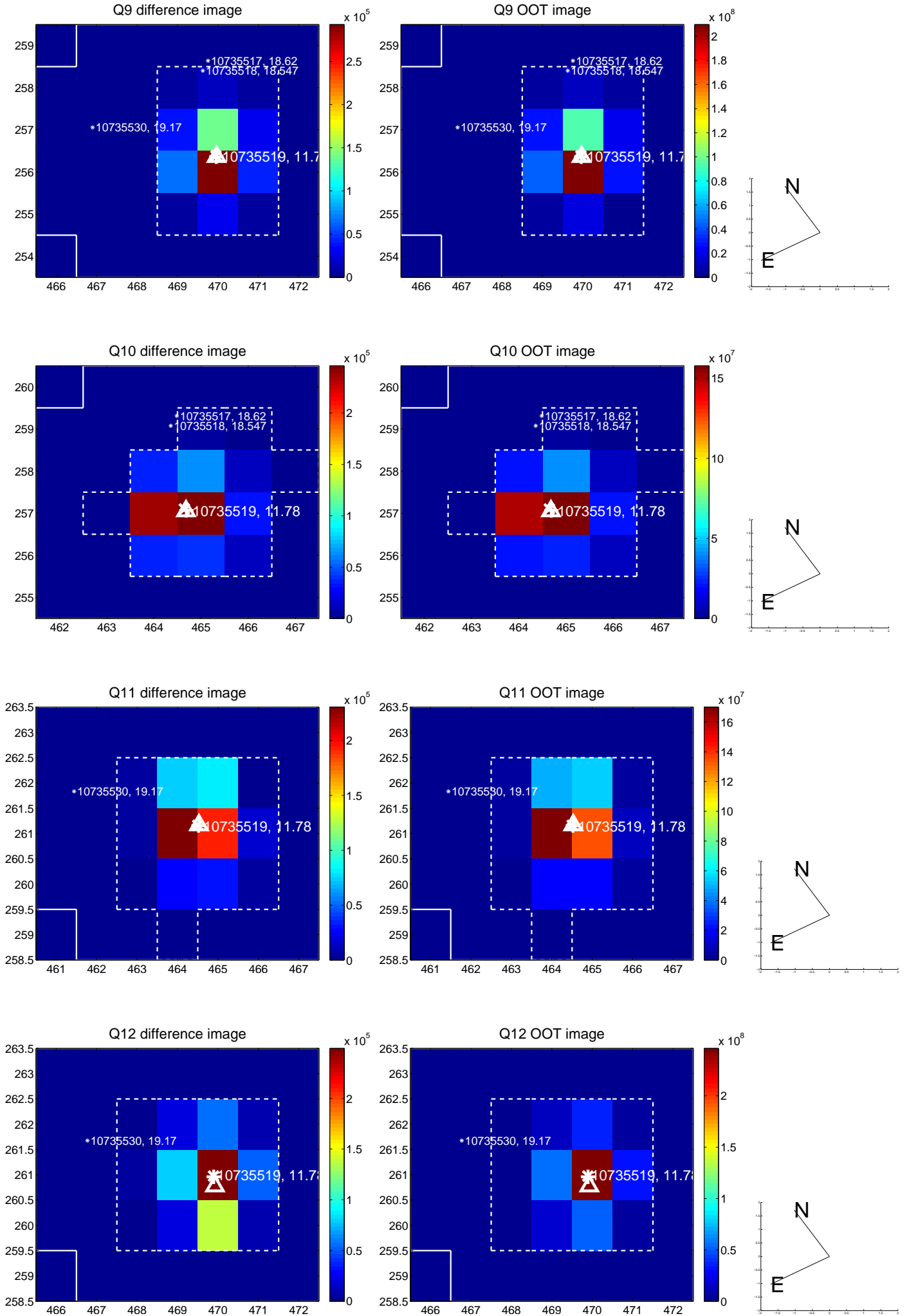
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



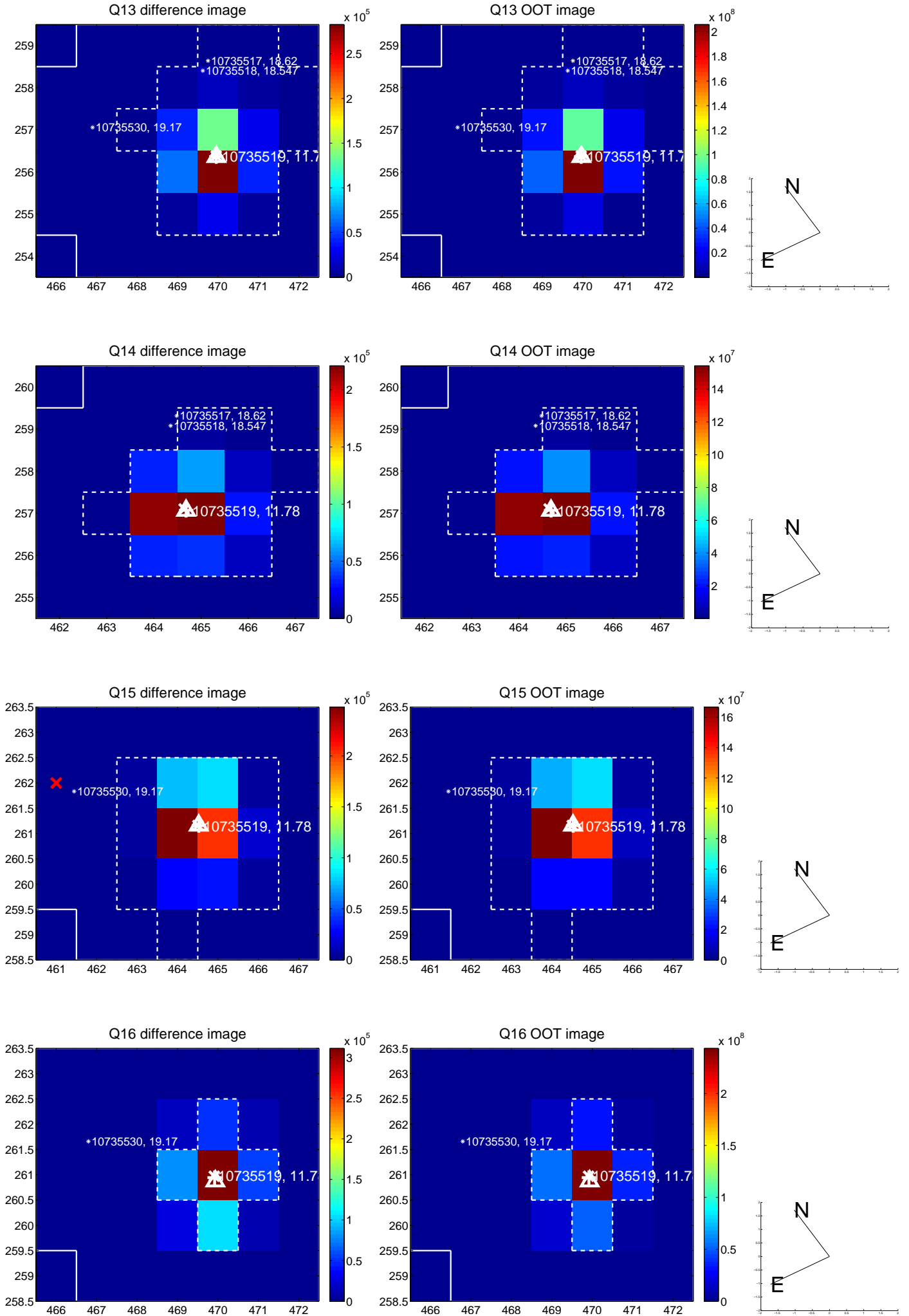
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



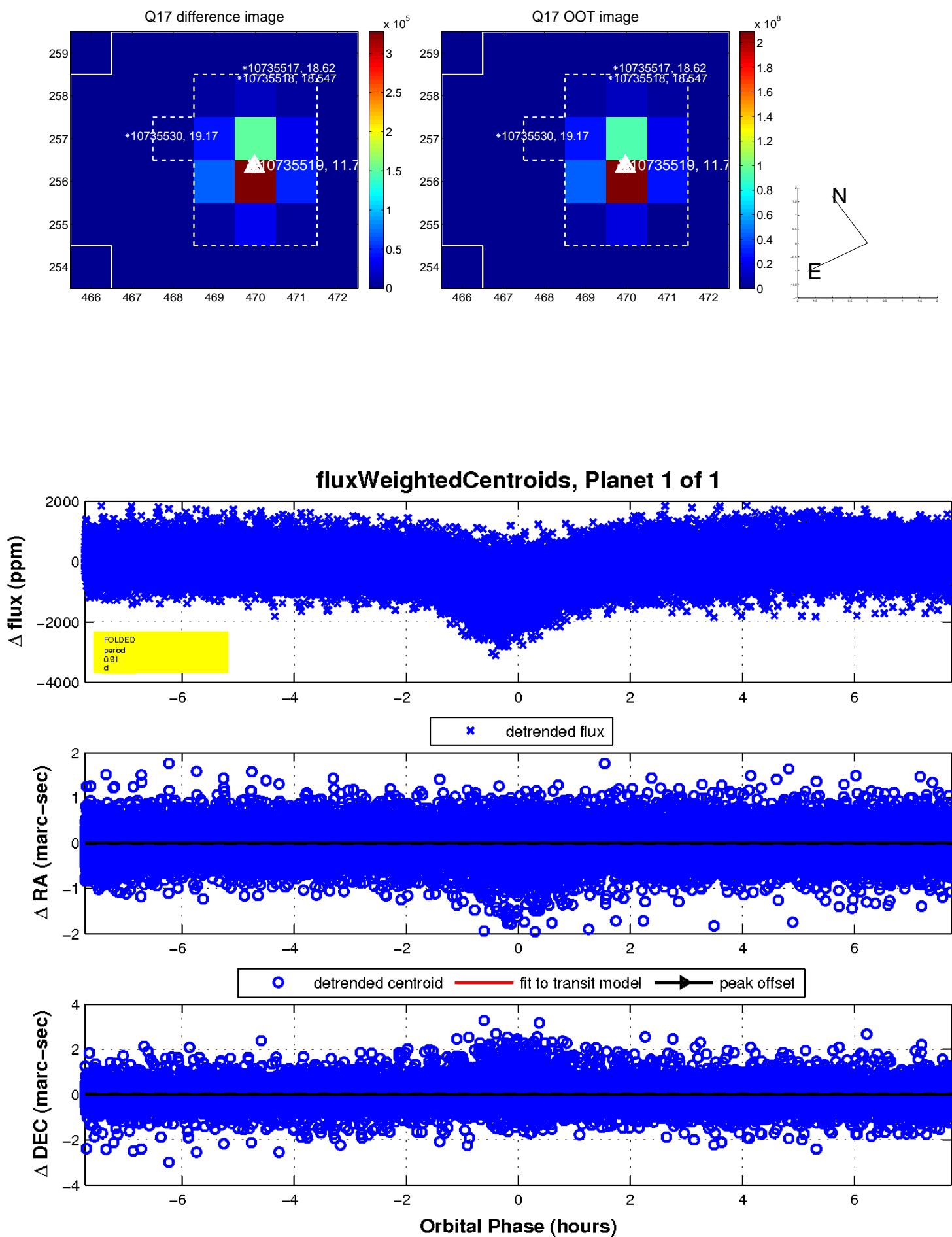
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

