

KIC 006531485

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})
006531485-01	OBS	6726.01	0.676990	131.801172	19159.2	1.581	1043.6	1349.9	0.82	5813	17.35	3212.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006531485-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED

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.

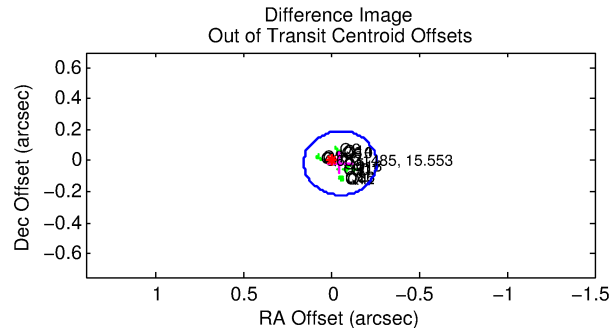
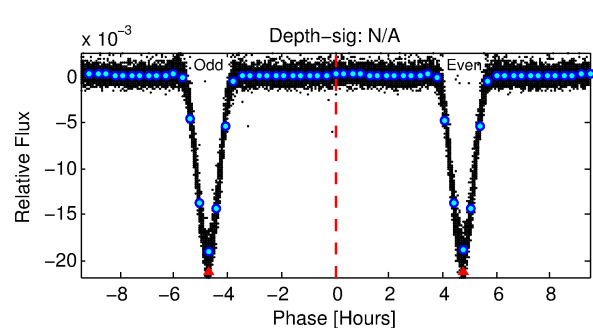
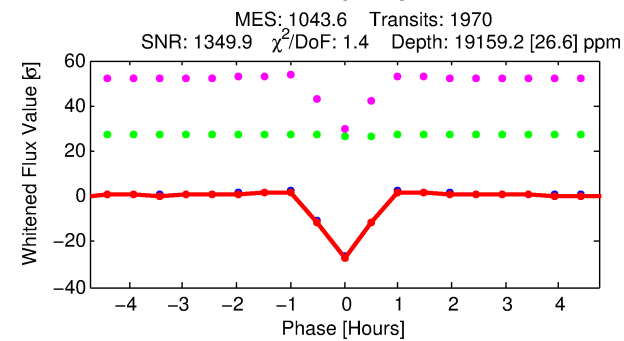
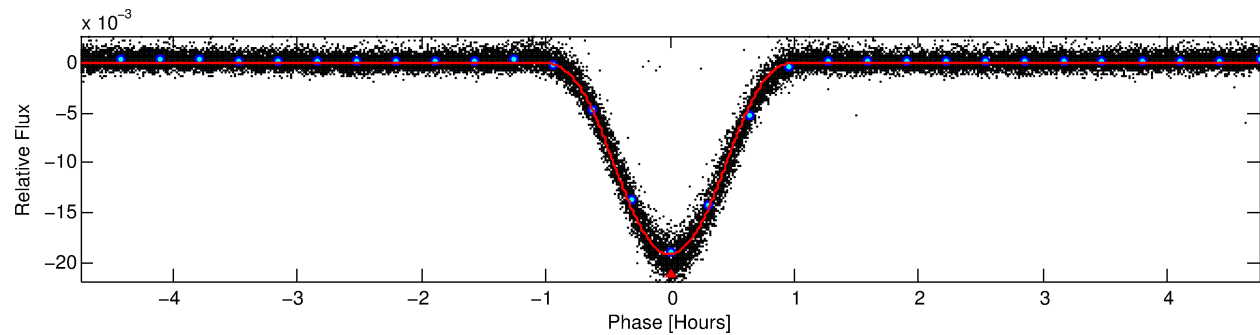
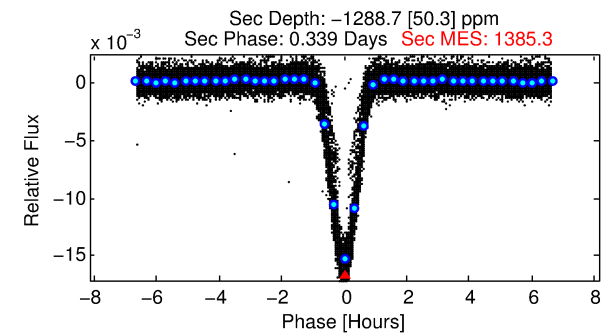
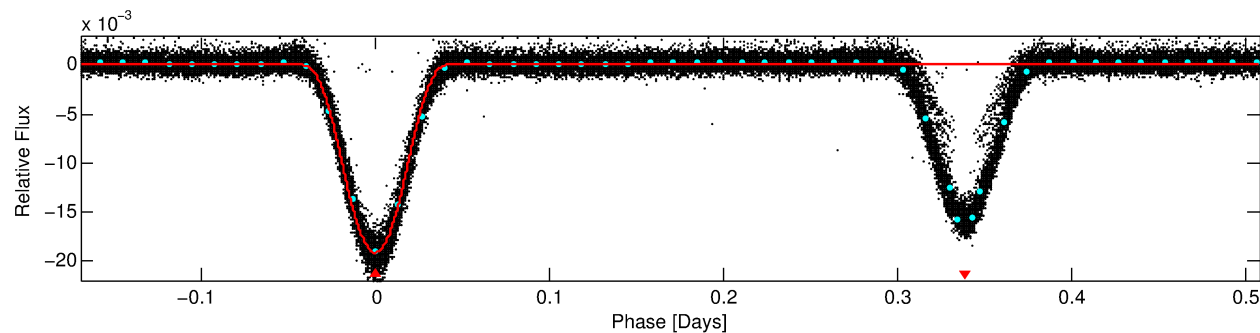
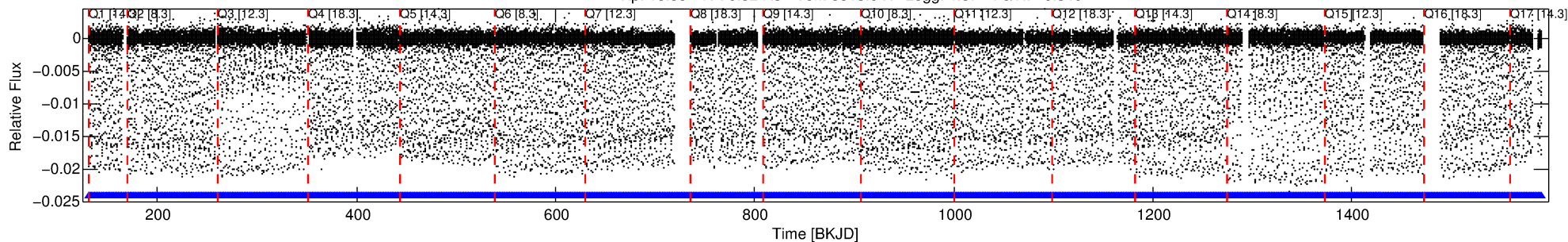
Ephemeris Match Information For 006531485-01

No Significant Match Found

DV One-Page Summary

KIC: 6531485 Candidate: 1 of 1 Period: 0.677 d
KOI: K06726.01 Corr: 0.968

Kp: 15.55 R*: 0.82 Rs Teff: 5813.0 K Logg: 4.57 Fe/H: -0.340



DV Fit Results:

Period = 0.67699 [0.00000] d
Epoch = 131.8012 [0.0000] BKJD
Rp/R* = 0.1948 [0.0105]
a/R* = 2.59 [0.01]
b = 0.95 [0.02]
Seff = 3212.52 [1101.71]
Teq = 1920 [165] K
Rp = 17.35 [4.62] Re
a = 0.0146 [0.0032] AU
Ag = N/A
Teffp = N/A

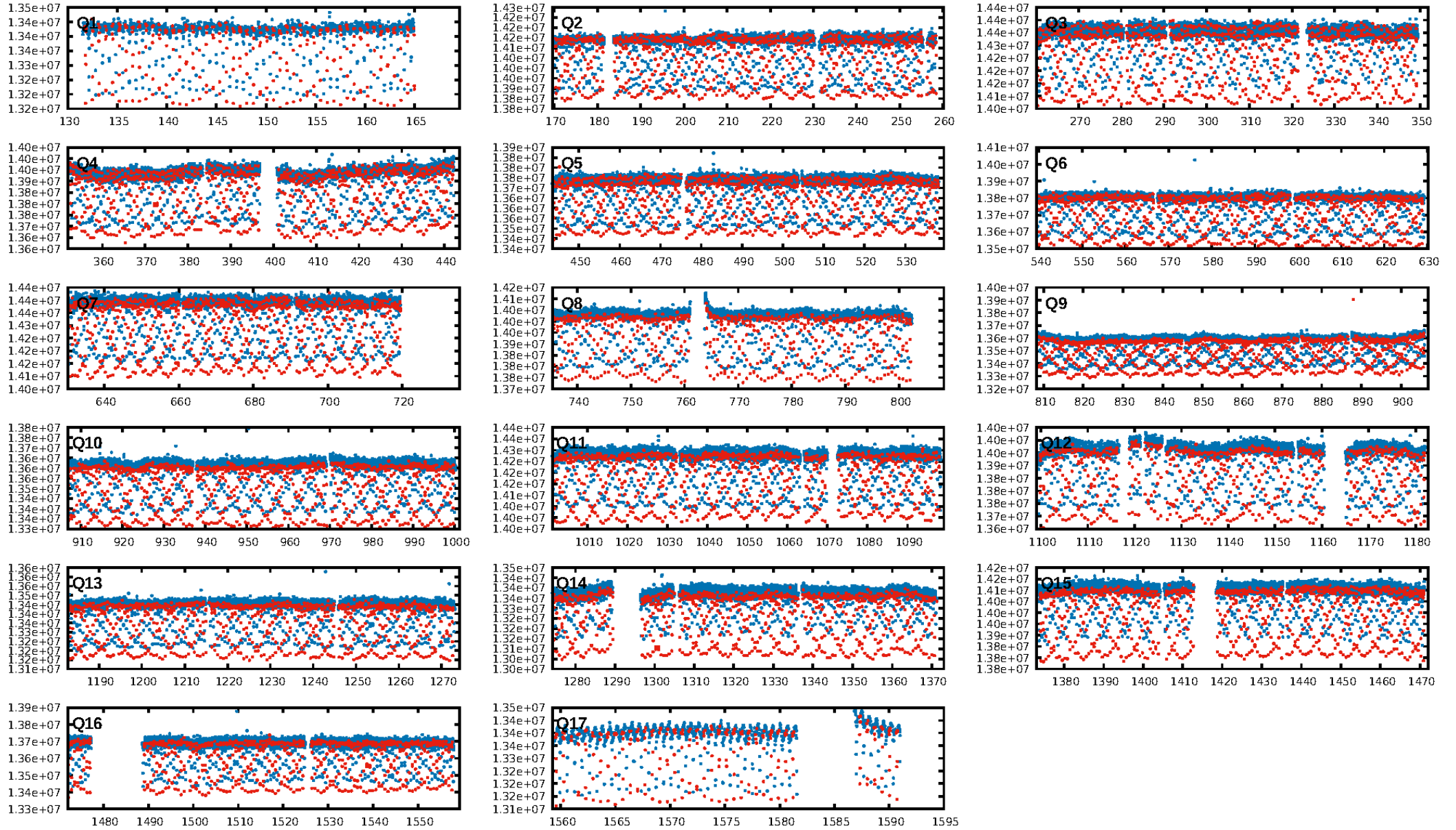
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1881/1881]
GhostDiagnostic-chr: 16.81
Centroid-sig: 0.0%
Centroid-so: 0.143 arcsec [20.23σ]
OotOffset-rm: 0.052 arcsec [0.76σ]
KicOffset-rm: 0.076 arcsec [1.04σ]
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]

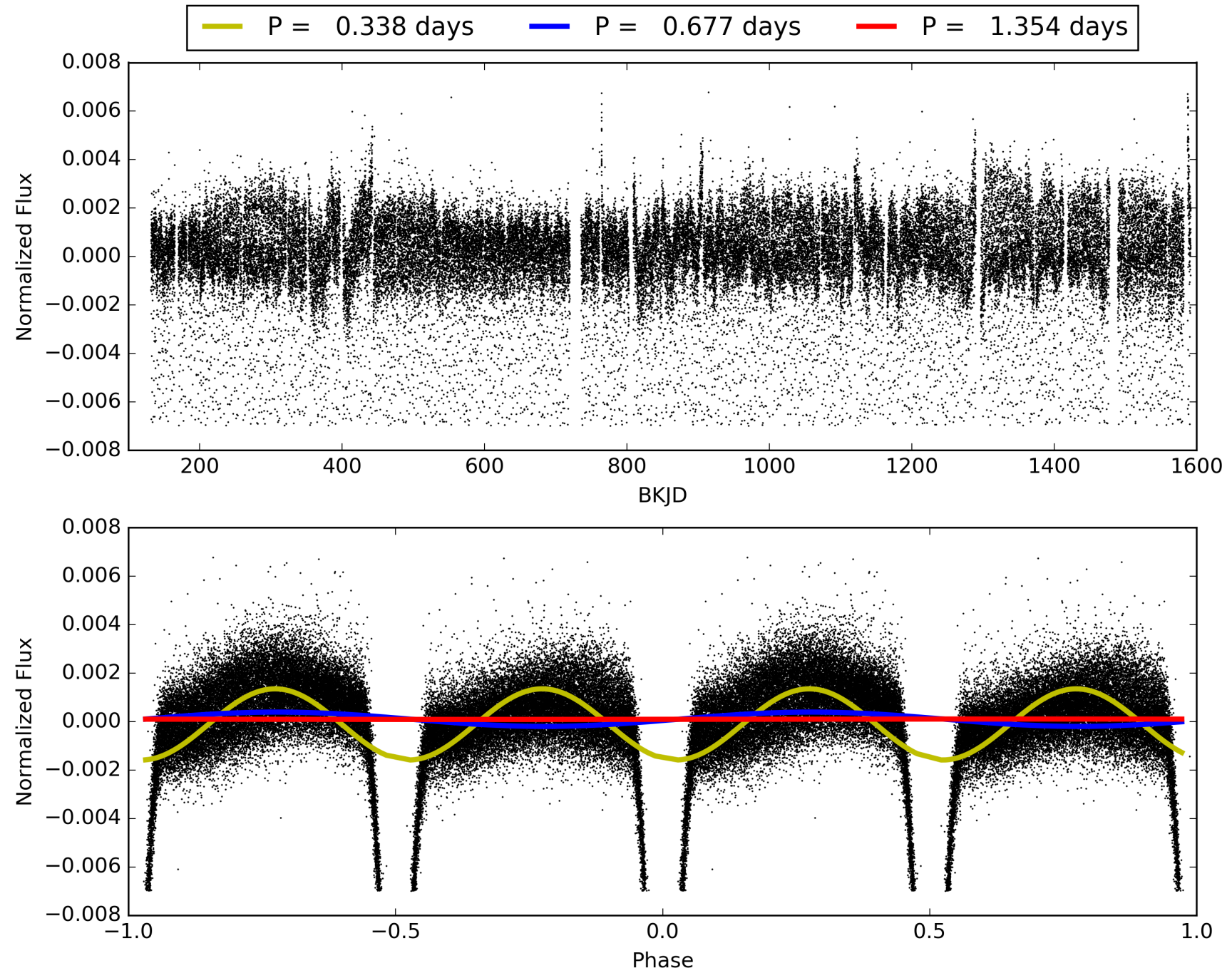
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:30:08 Z

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

TCE 006531485-01, PDC Light Curves

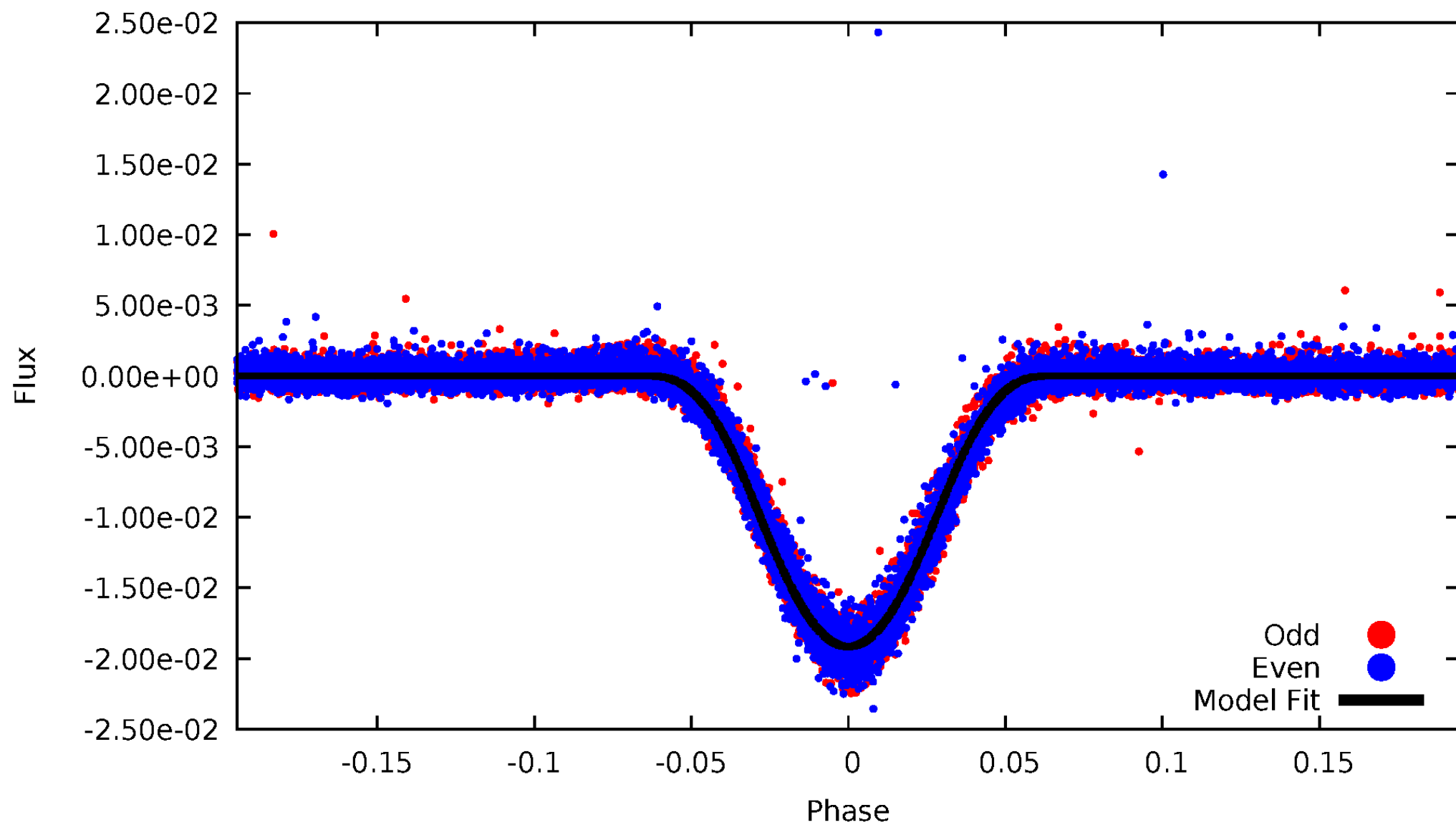


TCE 006531485-01



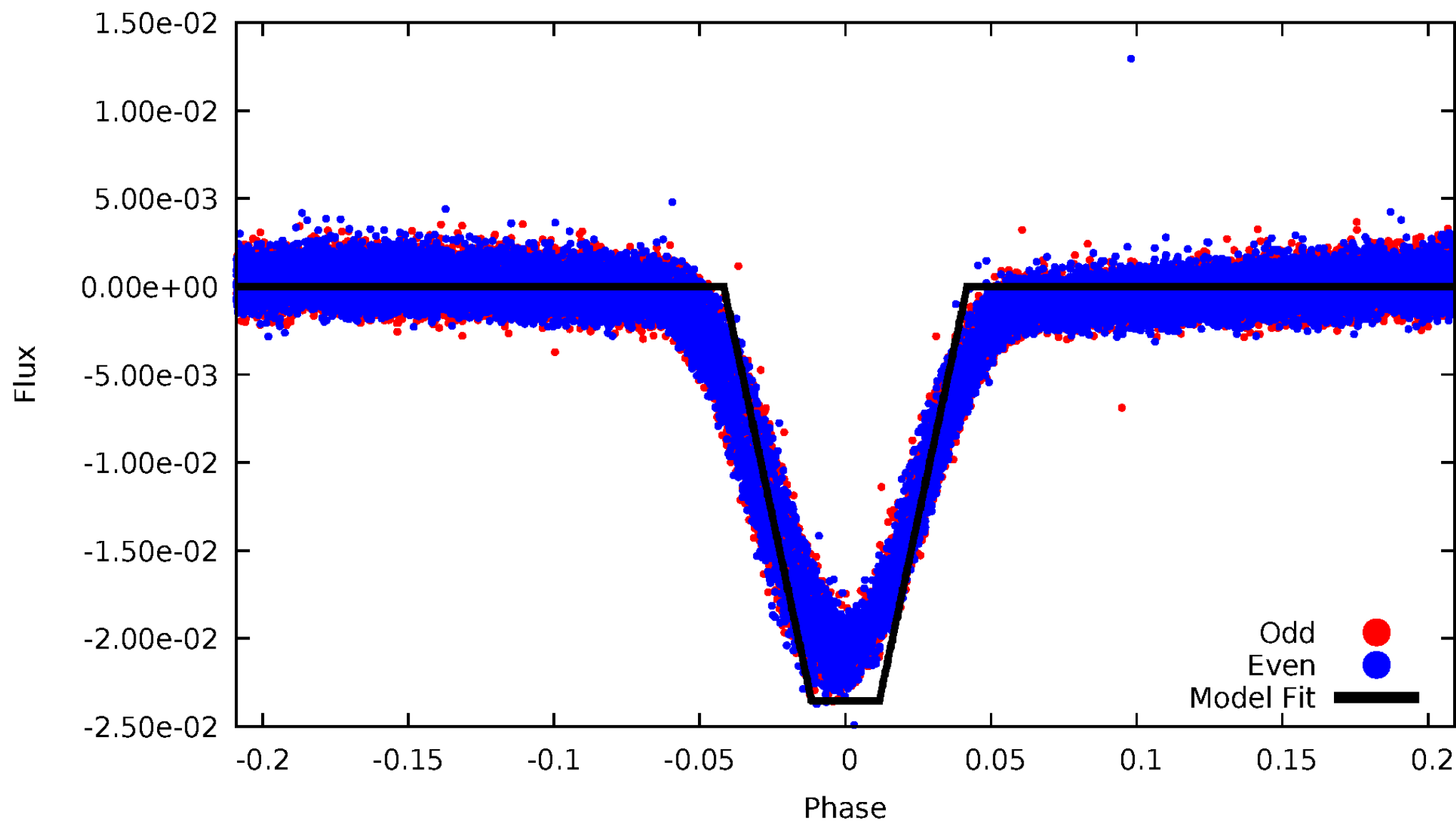
DV Odd/Even

TCE 006531485-01



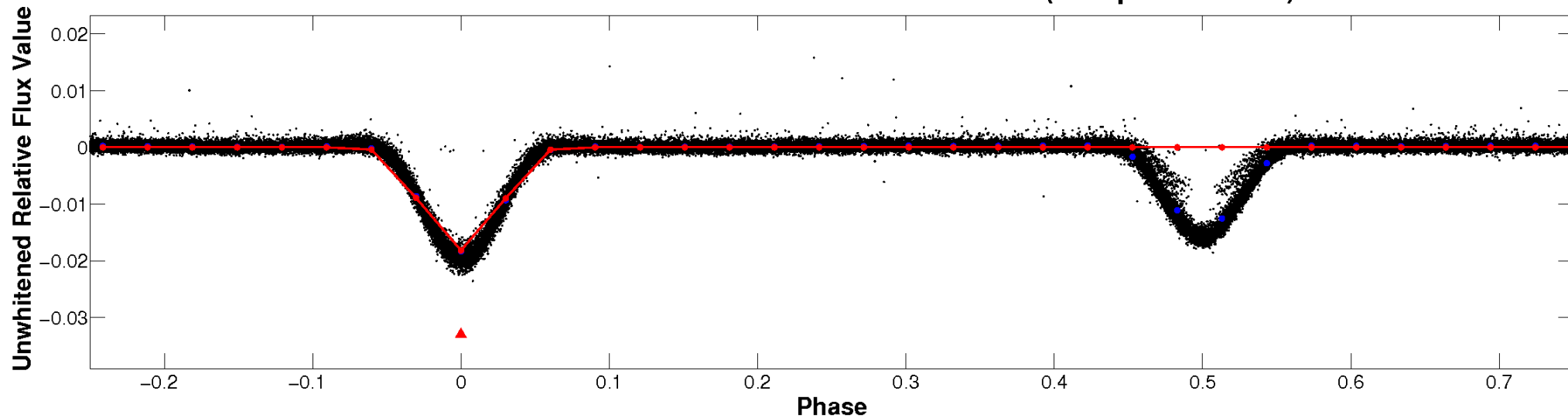
ALT Odd/Even

TCE 006531485-01

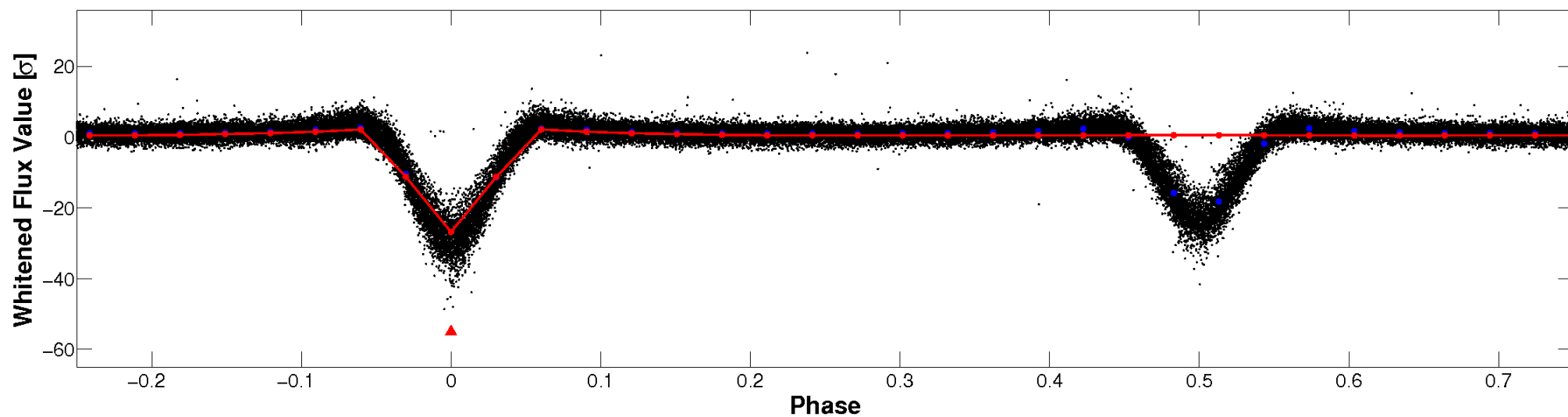


Non-Whitened Vs. Whitened Light Curve

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

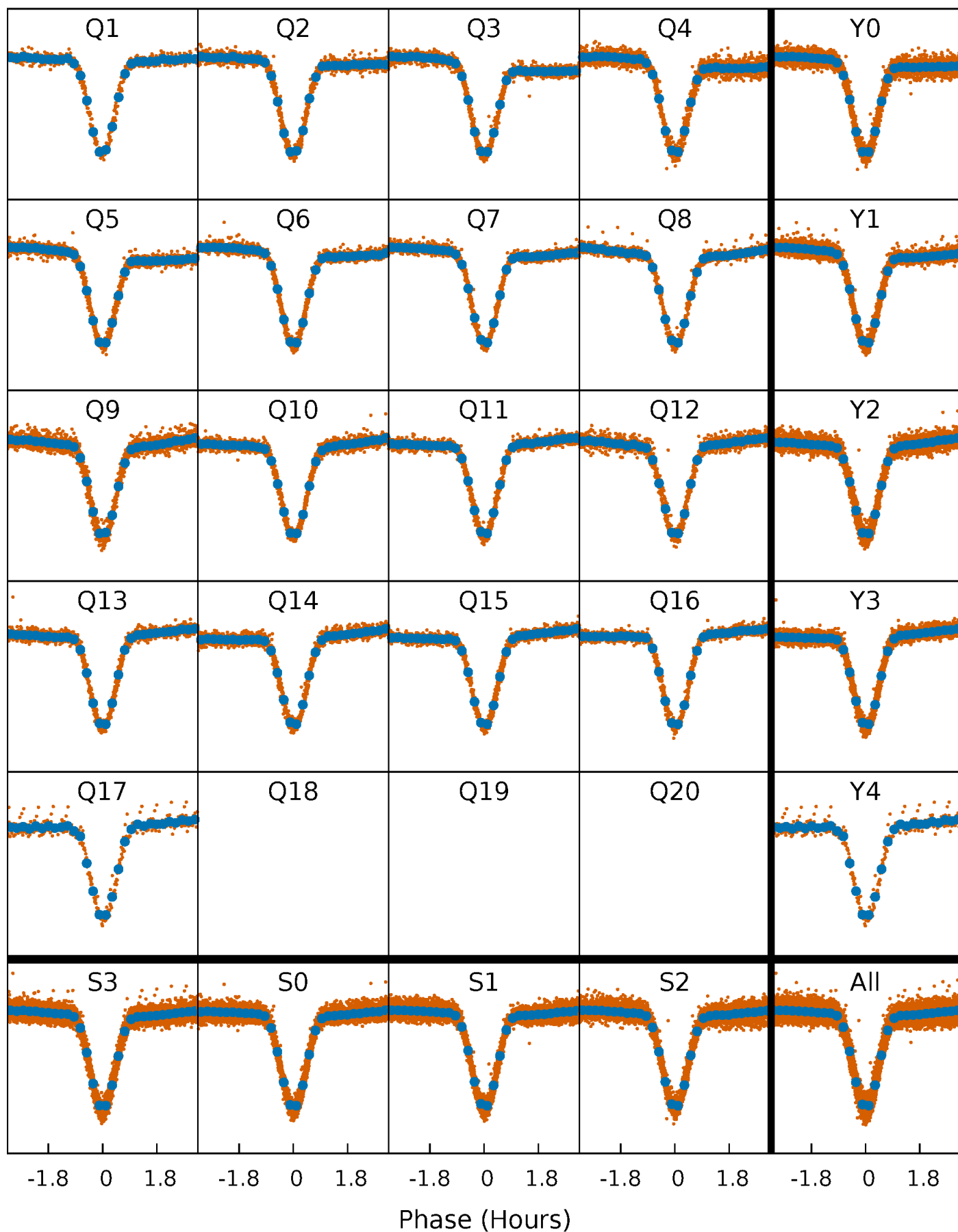


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



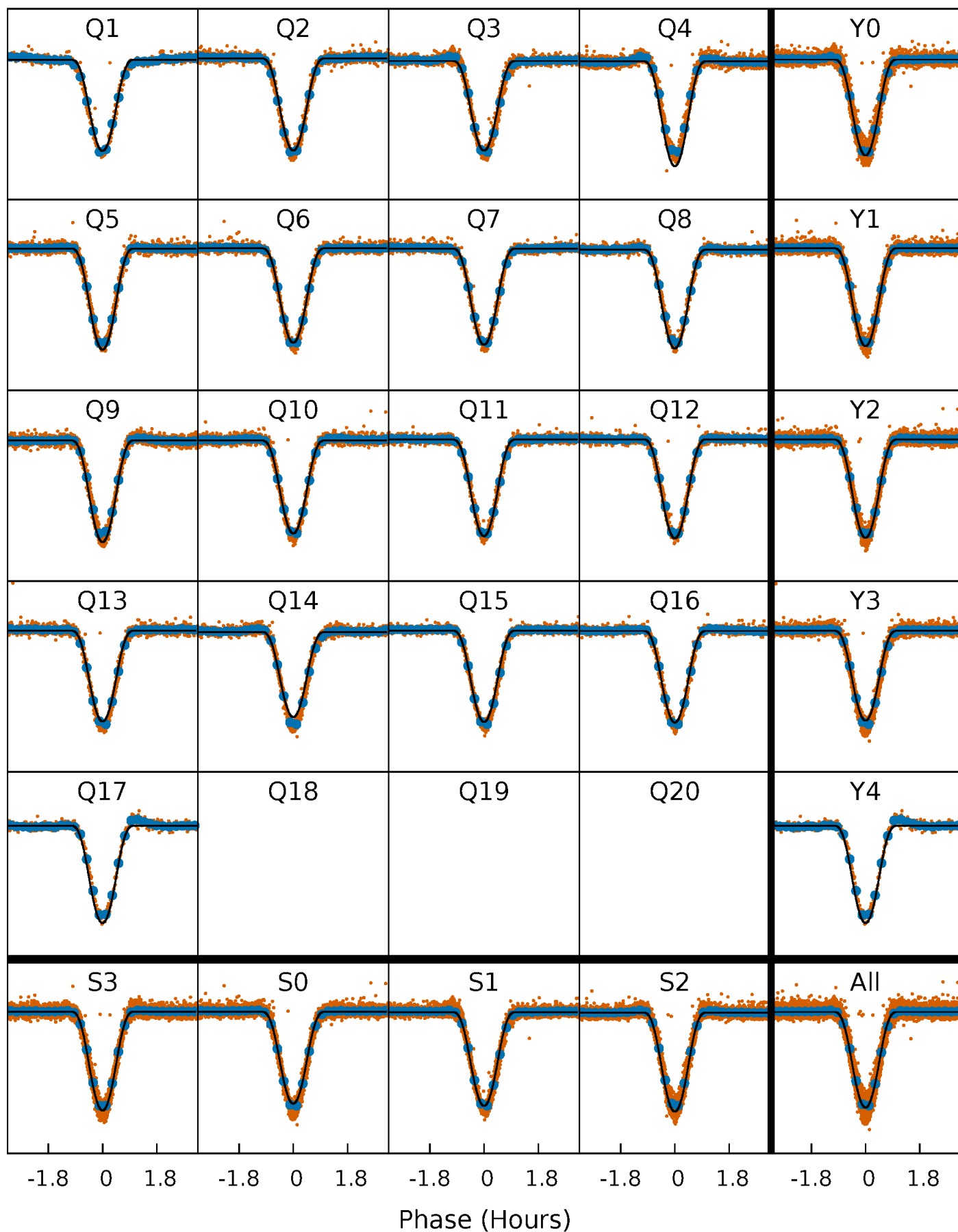
PDC Quarter-Phased Transit Curves

TCE 006531485-01 P= 0.676990 Days $T_0=131.801172$ (BKJD)



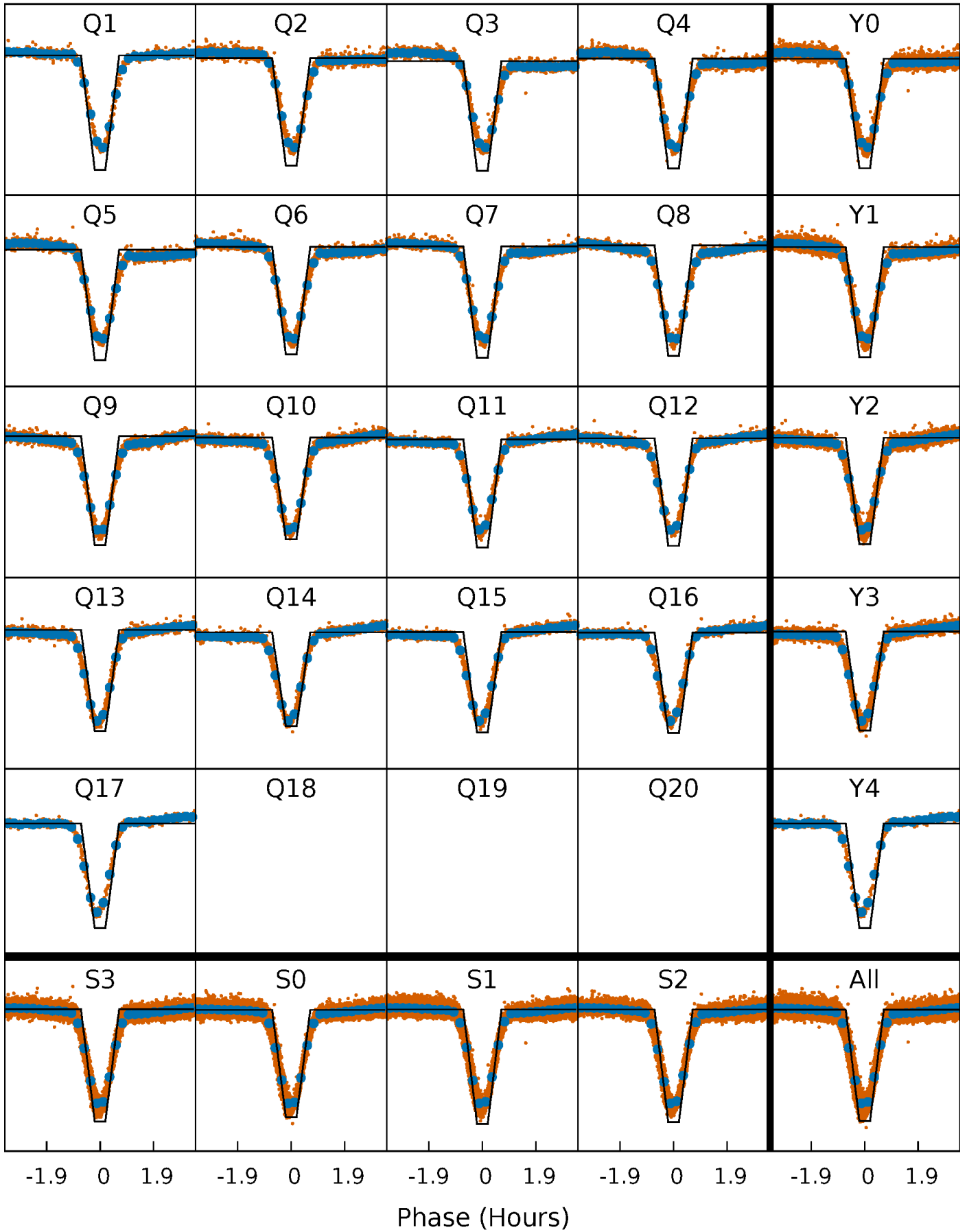
DV Quarter-Phased Transit Curves

TCE 006531485-01 P= 0.676990 Days $T_0=131.801172$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

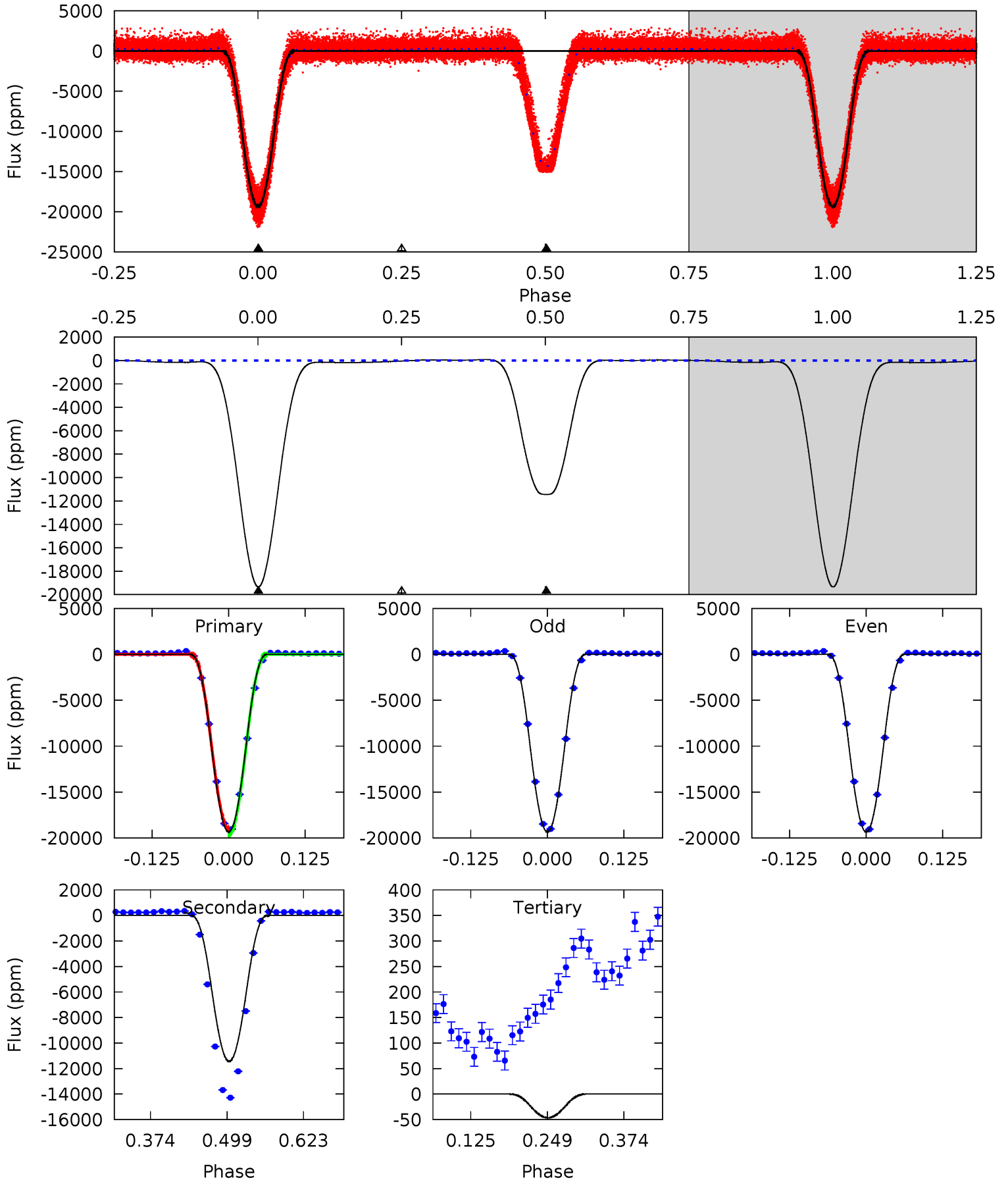
TCE 006531485-01 P= 0.676993 Days $T_0=131.798668$ (BKJD)



DV Model-Shift Uniqueness Test

006531485-01, P = 0.676990 Days, E = 131.124182 Days

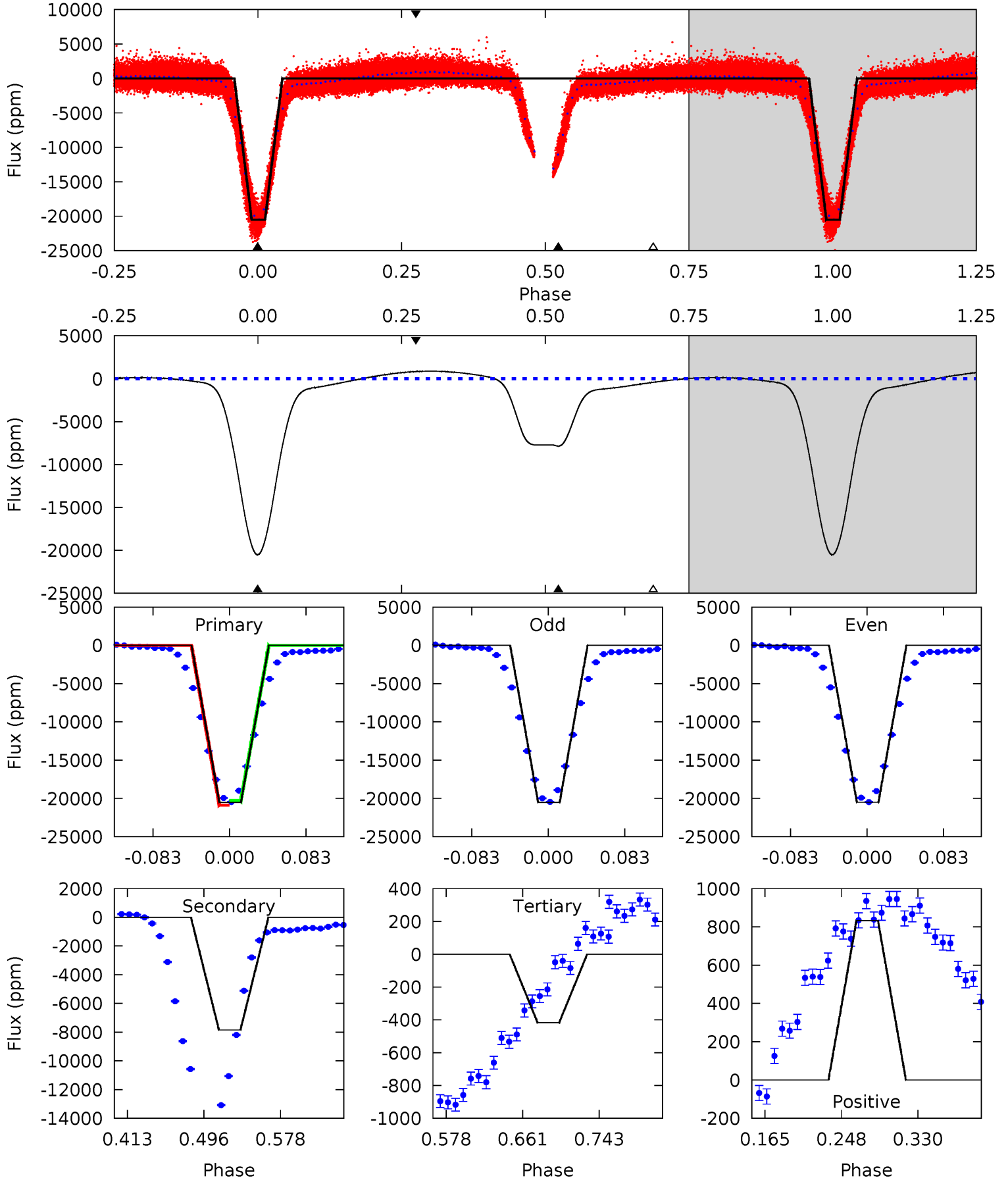
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2968	1755	7.10	0	4.52	1.54	12.7	2961	2968	1748	1755	0.05	0.99	0.00	53.3



Alt Model-Shift Uniqueness Test

006531485-01, P = 0.676993 Days, E = 131.121675 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1448	553.7	29.5	58.8	4.60	1.74	42.9	1418	1389	524.3	495.0	0.43	1.00	0.04	23.0



Stellar Parameters For KIC 006531485

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5813^{+157}_{-174}	$4.568^{+0.044}_{-0.176}$	$-0.340^{+0.300}_{-0.300}$	$0.816^{+0.213}_{-0.071}$	$0.903^{+0.090}_{-0.111}$	$2.341^{+0.418}_{-1.123}$
	+3%/-3%	+1%/-4%	+88%/-88%	+26%/-9%	+10%/-12%	+18%/-48%
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 006531485-01 / KOI 6726.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11438 ± 7	$17.89^{+2.47}_{-1.68}$	2733^{+164}_{-118}	4438^{+153}_{-147}	$4.147^{+0.829}_{-0.862}$
Alt.	-7847 ± 14	$14.09^{+2.03}_{-1.51}$	2729^{+162}_{-121}	4522^{+170}_{-168}	$4.575^{+0.981}_{-0.987}$

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 $A_{obs} \gg 1.0$

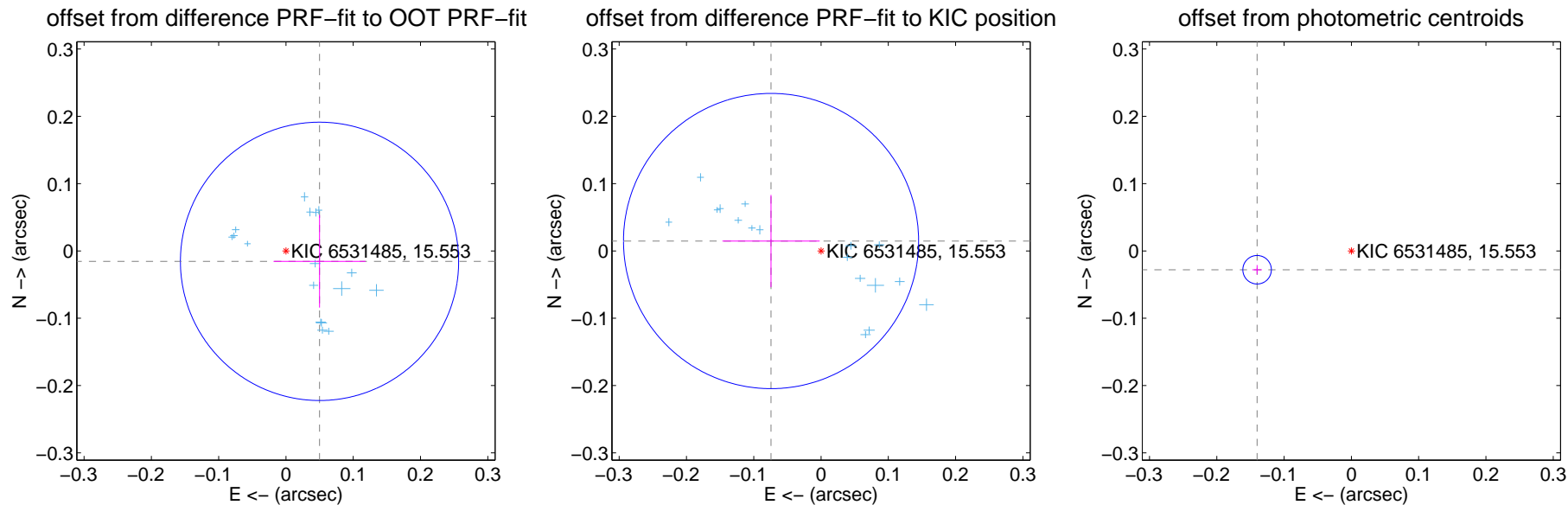
DV Centroid Data

Supplemental centroid analysis for 006531485-01. Kepler magnitude: 15.55. Transit SNR 1349.88

There are 17 quarters with good PRF difference image offsets

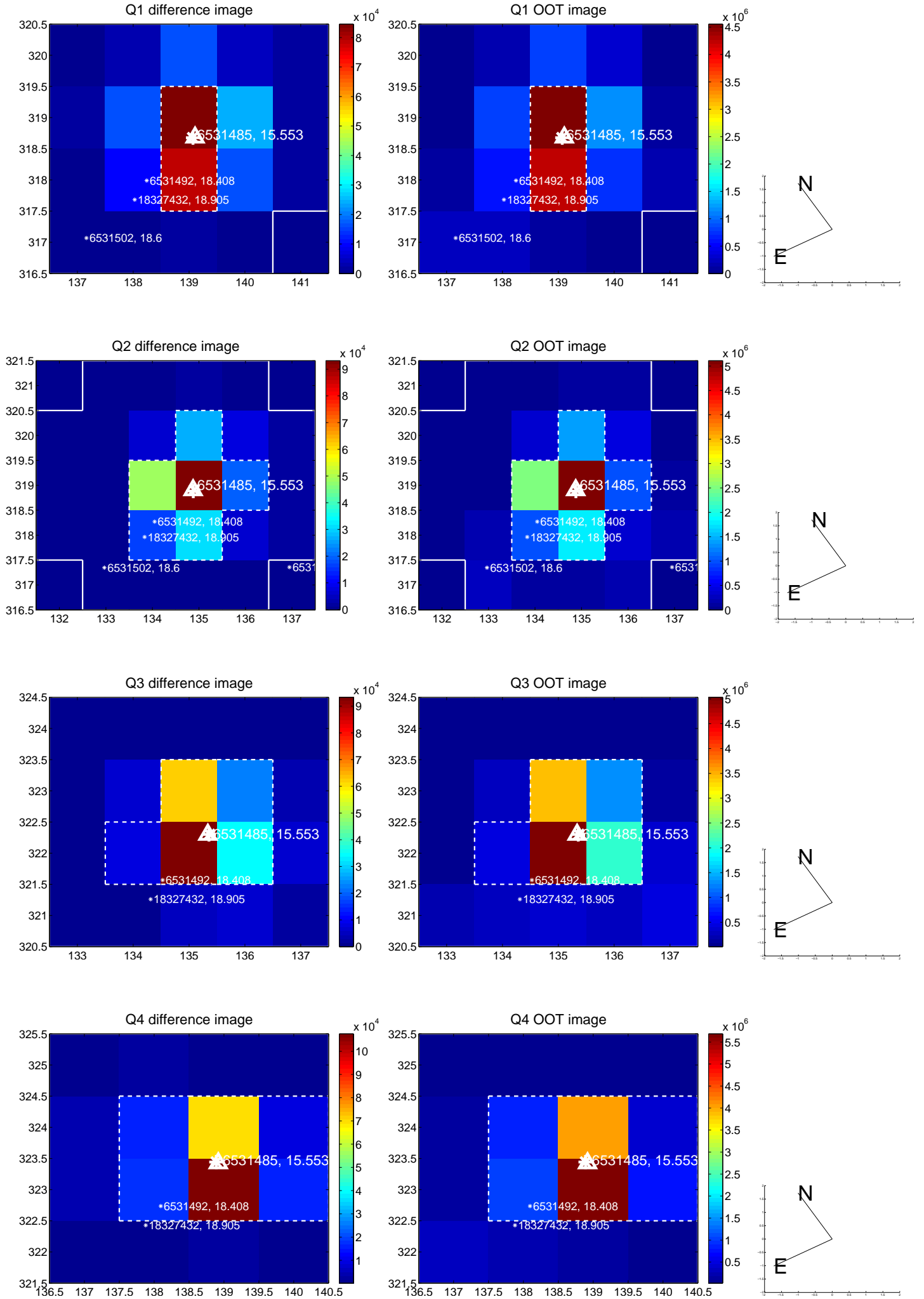
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.052 ± 0.069	0.76	-0.050 ± 0.068	-0.015 ± 0.069
PRF-fit source offset from KIC position	0.076 ± 0.073	1.04	0.074 ± 0.072	0.015 ± 0.068
photometric centroid source offset	0.14 ± 0.01	20.23	0.14 ± 0.01	-0.03 ± 0.01

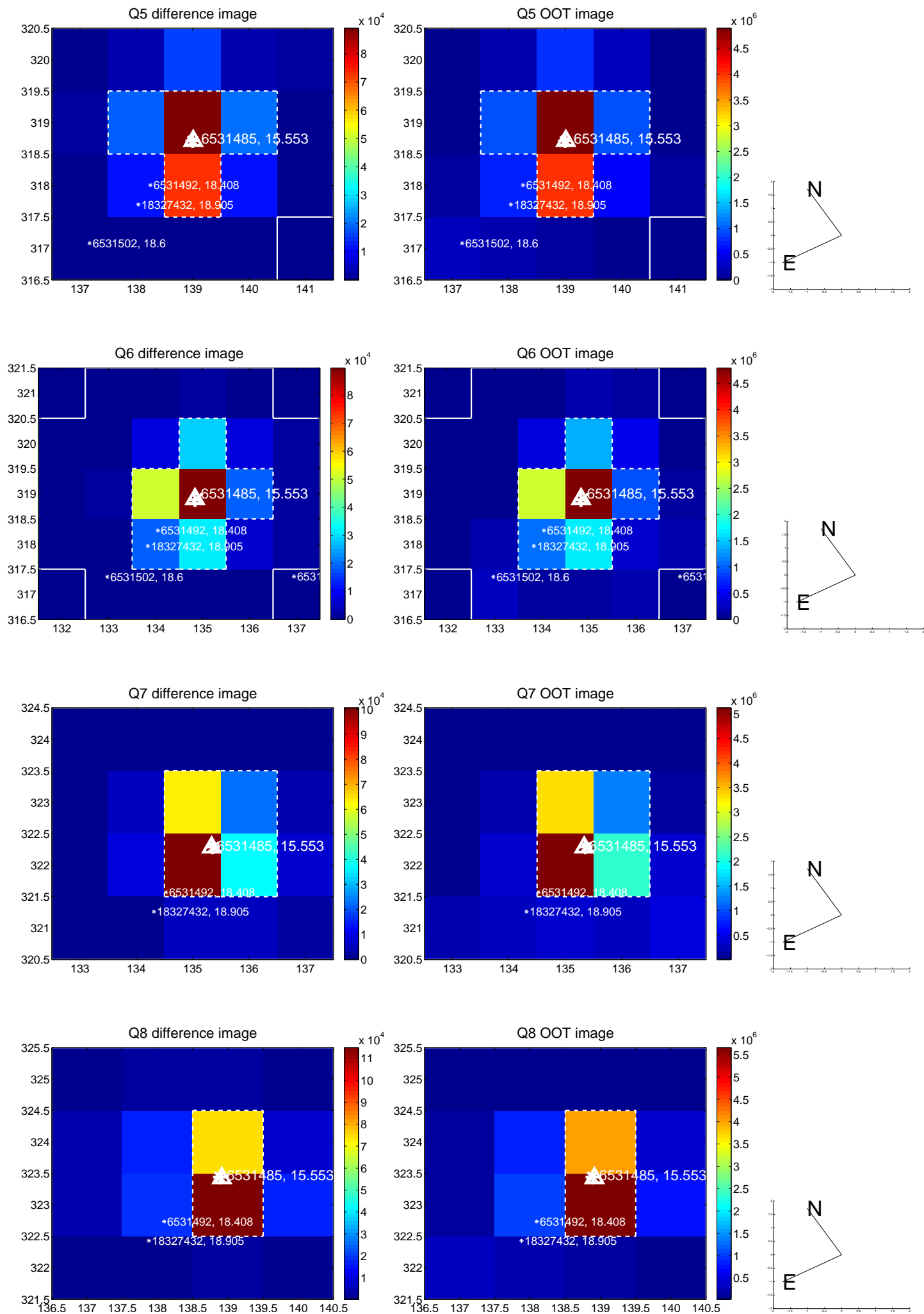


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

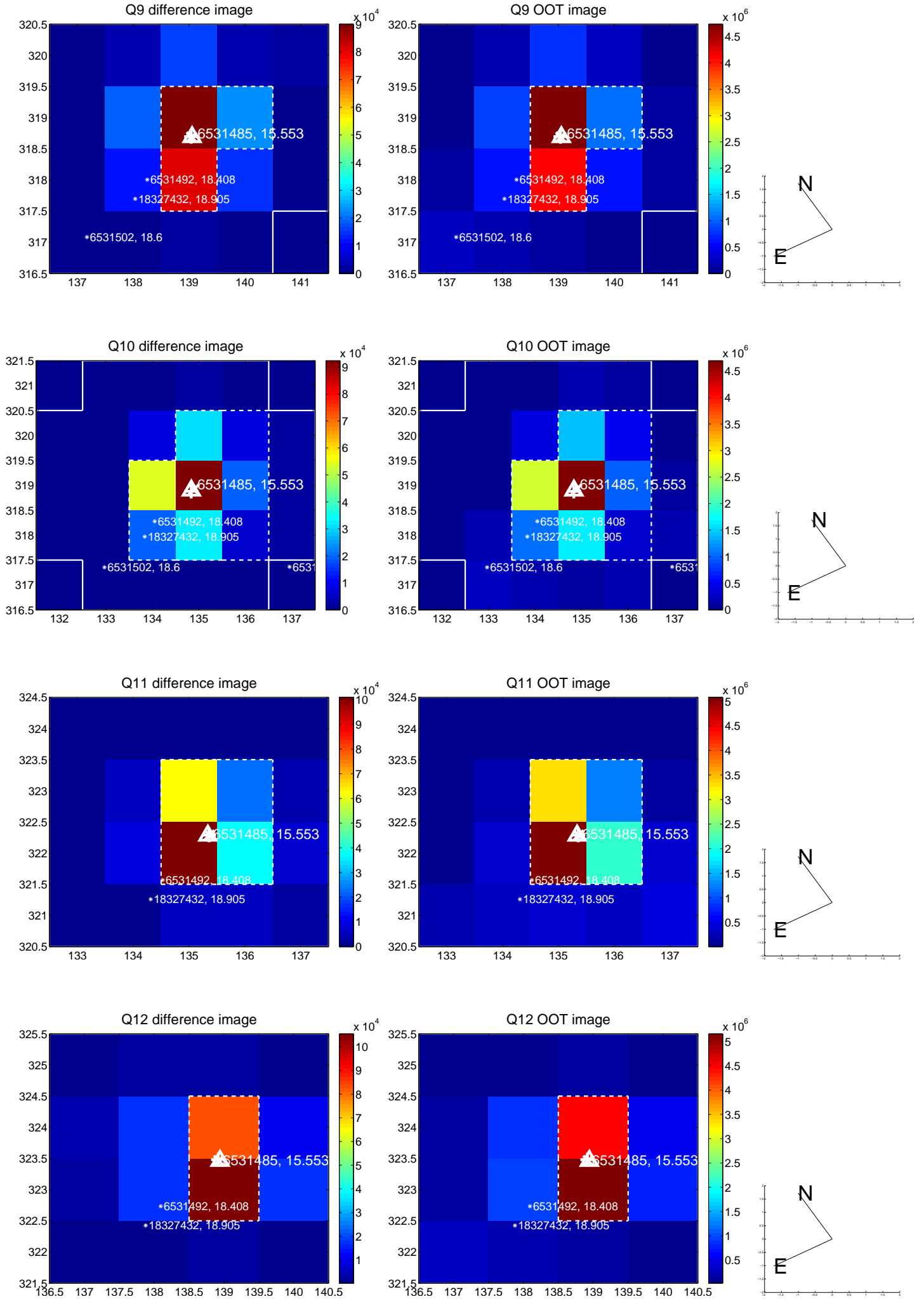
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



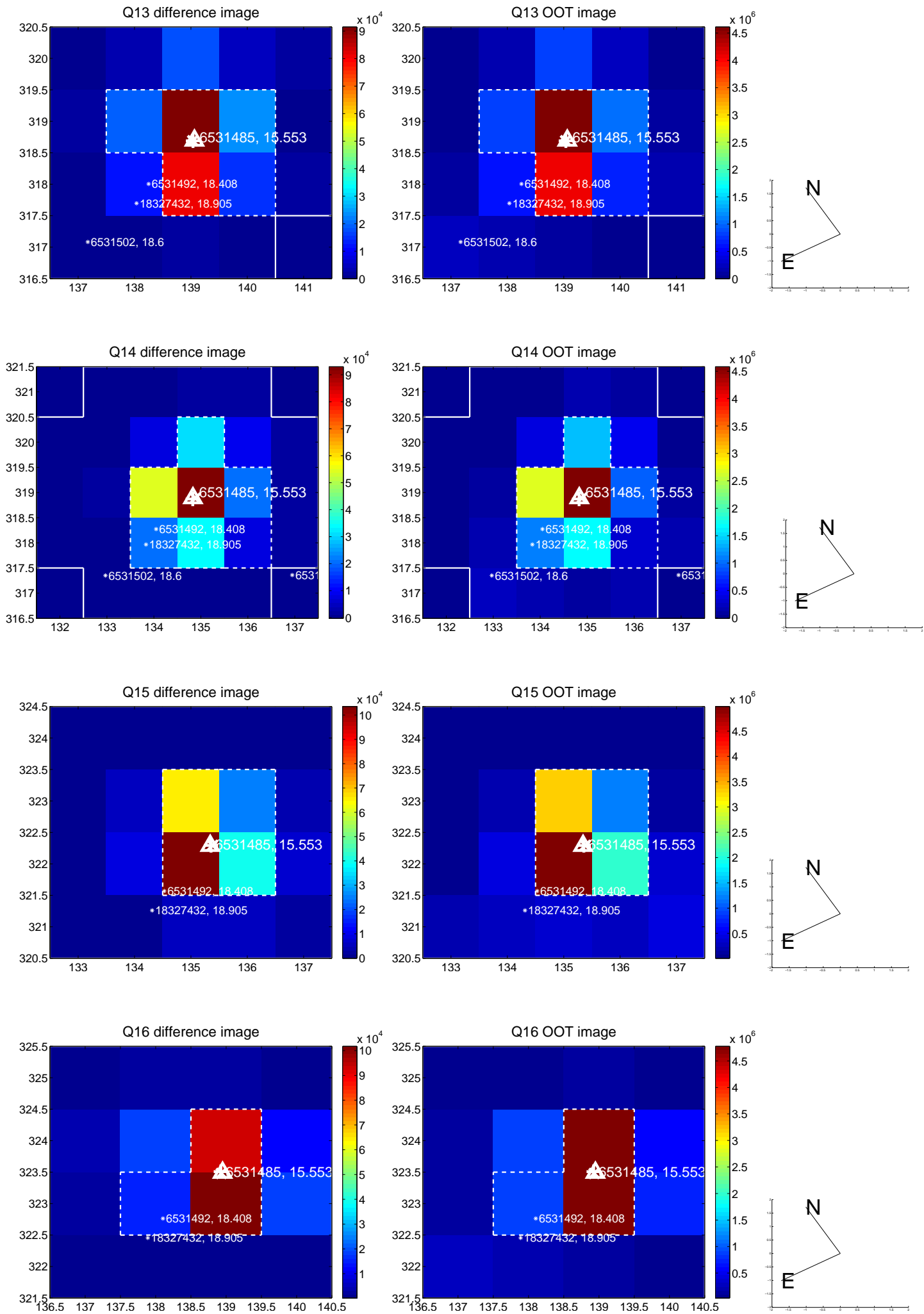
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



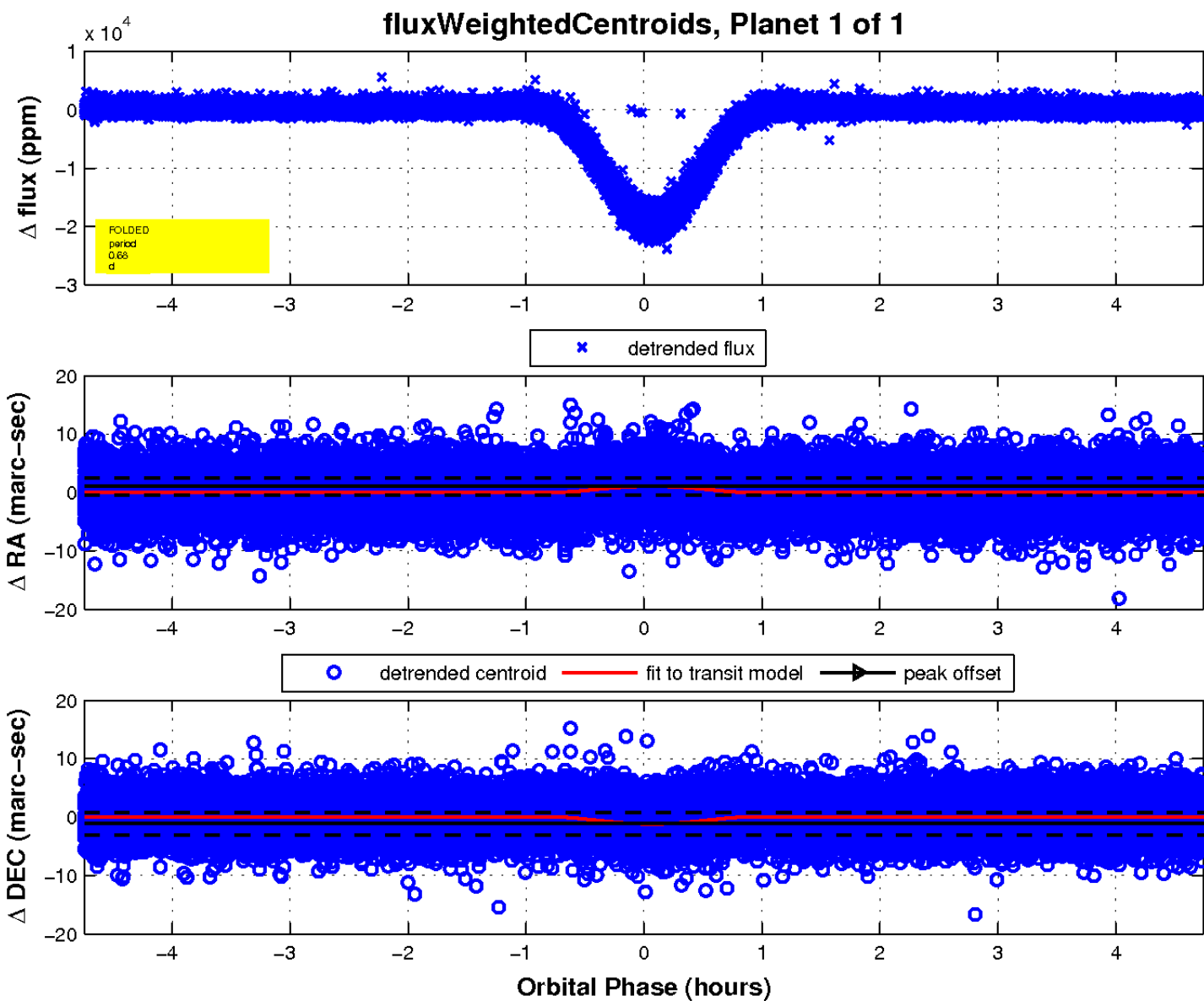
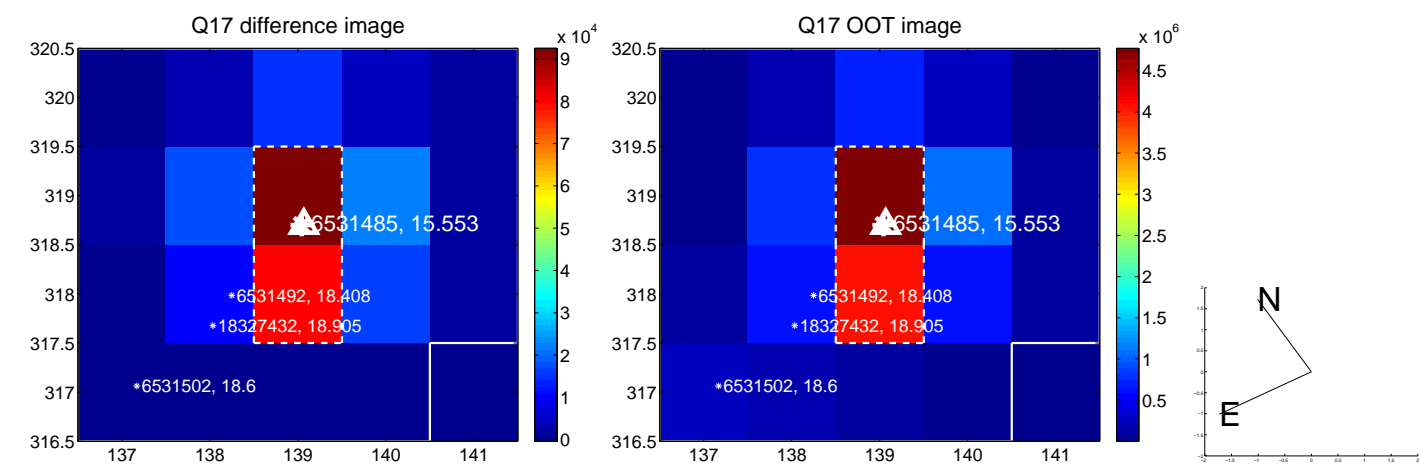
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UKIRT Image

Declination

