

KIC 005288543

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})
005288543-01	OBS	6555.01	1.728536	131.806865	312807.9	5.249	40941.5	40791.3	1.48	6526	85.70	3936.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005288543-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—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.

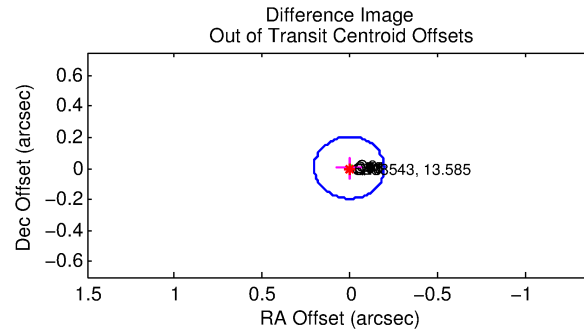
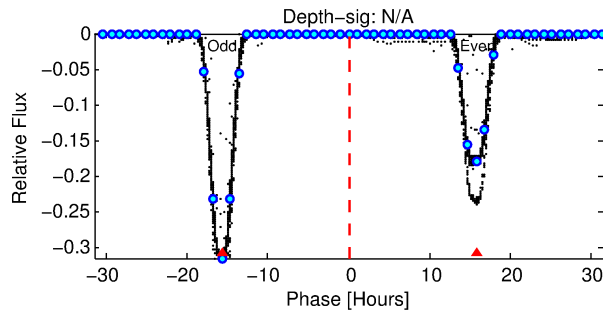
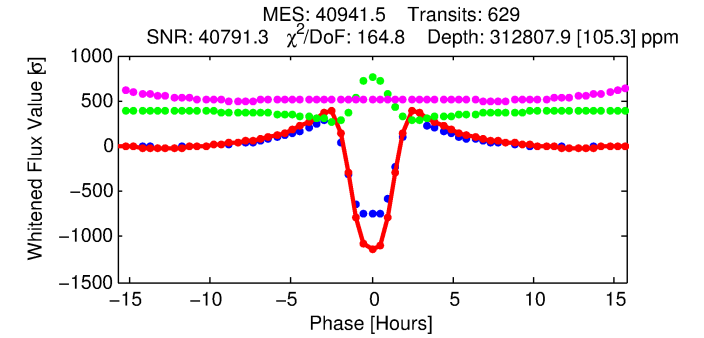
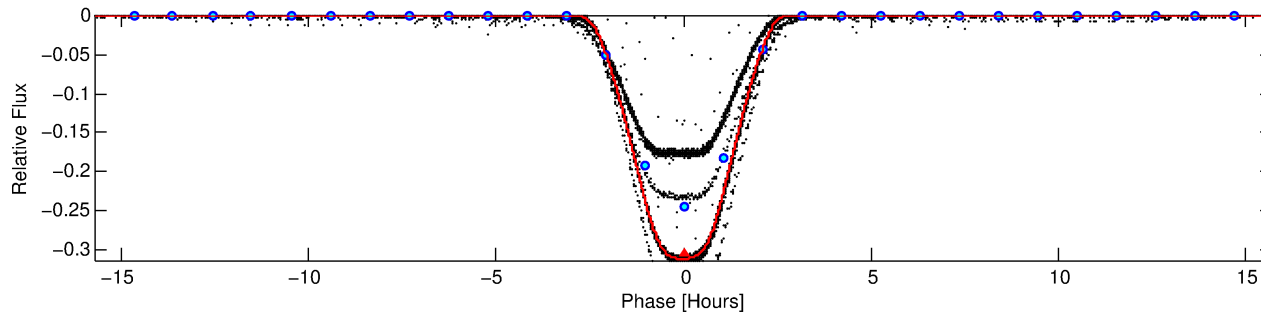
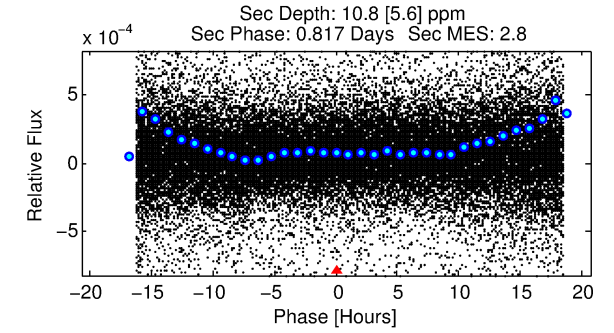
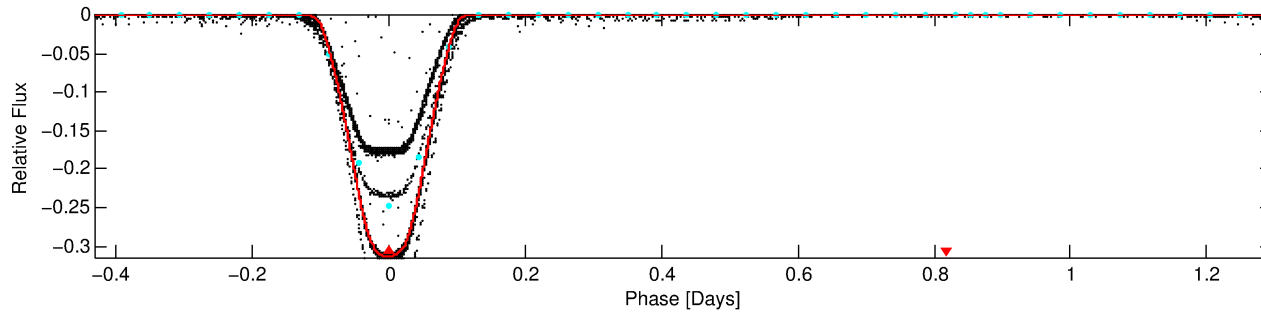
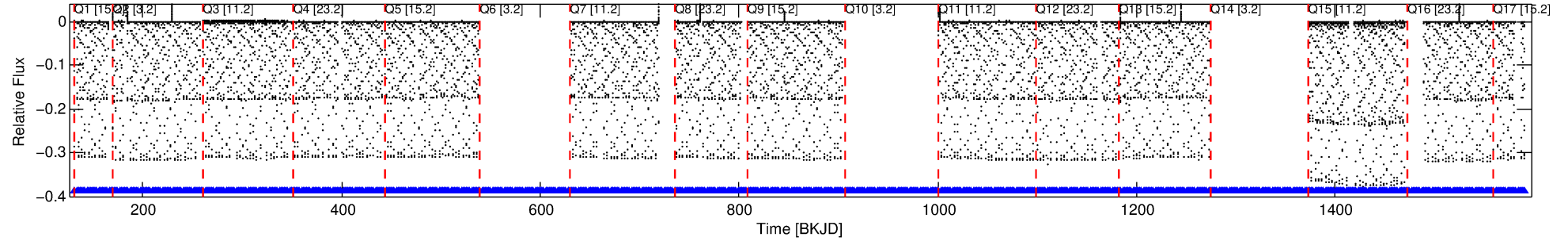
Ephemeris Match Information For 005288543-01

No Significant Match Found

DV One-Page Summary

KIC: 5288543 Candidate: 1 of 1 Period: 1.729 d
KOI: K06555 Corr: No Ephemeris Match

Kp: 13.59 R*: 1.48 Rs Teff: 6526.0 K Logg: 4.18 Fe/H: -0.200



DV Fit Results:

Period = 1.72854 [0.00000] d
Epoch = 131.8069 [0.0000] BKJD
Rp/R* = 0.5300 [0.0001]
a/R* = 3.88 [0.00]
b = 0.31 [0.00]
Seff = 3936.80 [1469.65]
Teff = 2020 [189] K
Rp = 85.70 [25.56] Re
a = 0.0301 [0.0073] AU
Ag = 0.00 [0.00] [-2190.33σ]
Teffp = 514 [70] K [-7.49σ]

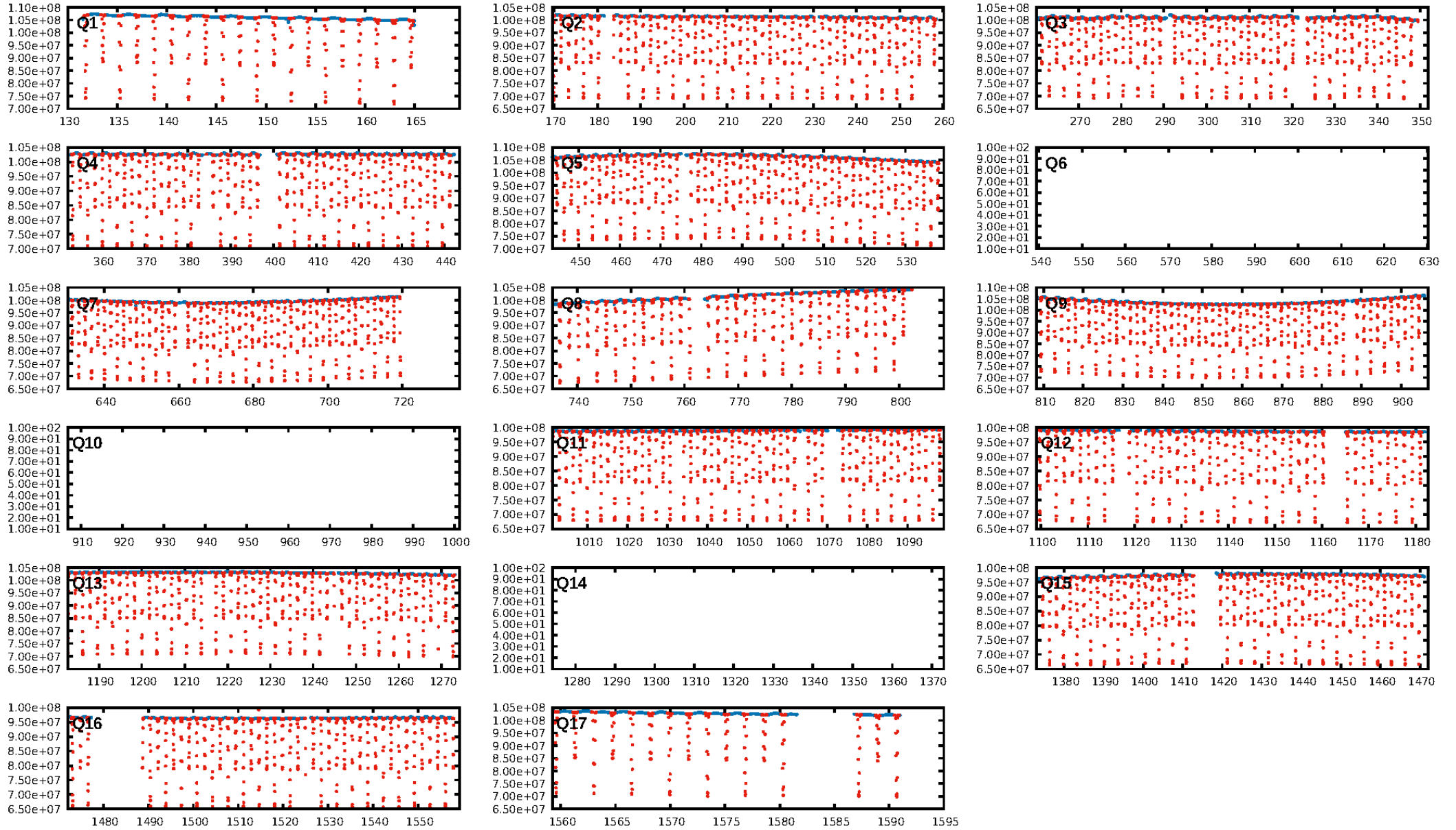
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [593/593]
GhostDiagnostic-chr: 1.416
Centroid-sig: 0.0%
Centroid-so: 0.064 arcsec [236.12σ]
OotOffset-rm: 0.007 arcsec [0.11σ]
KicOffset-rm: 0.061 arcsec [0.91σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

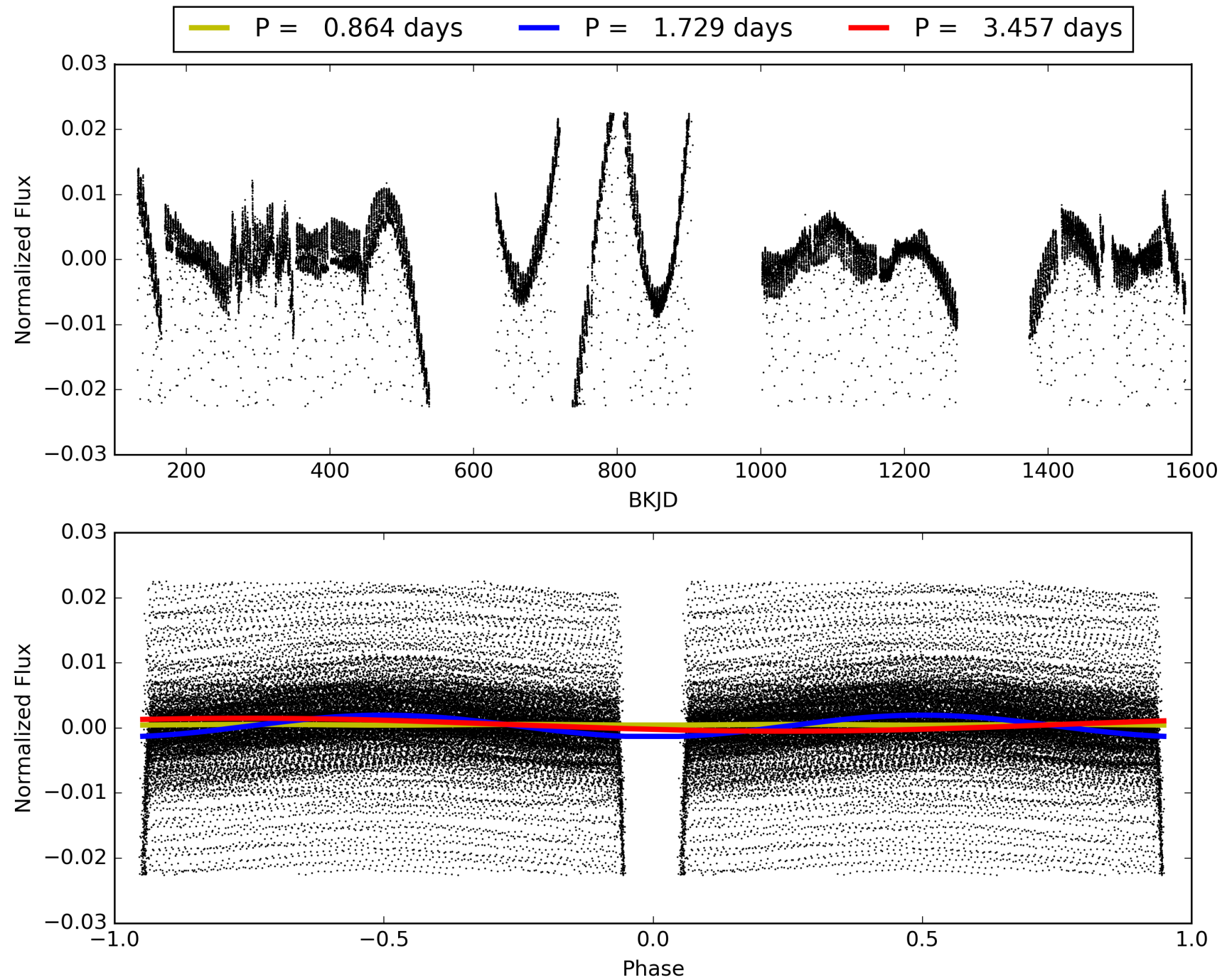
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:26:37 Z

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

TCE 005288543-01, PDC Light Curves

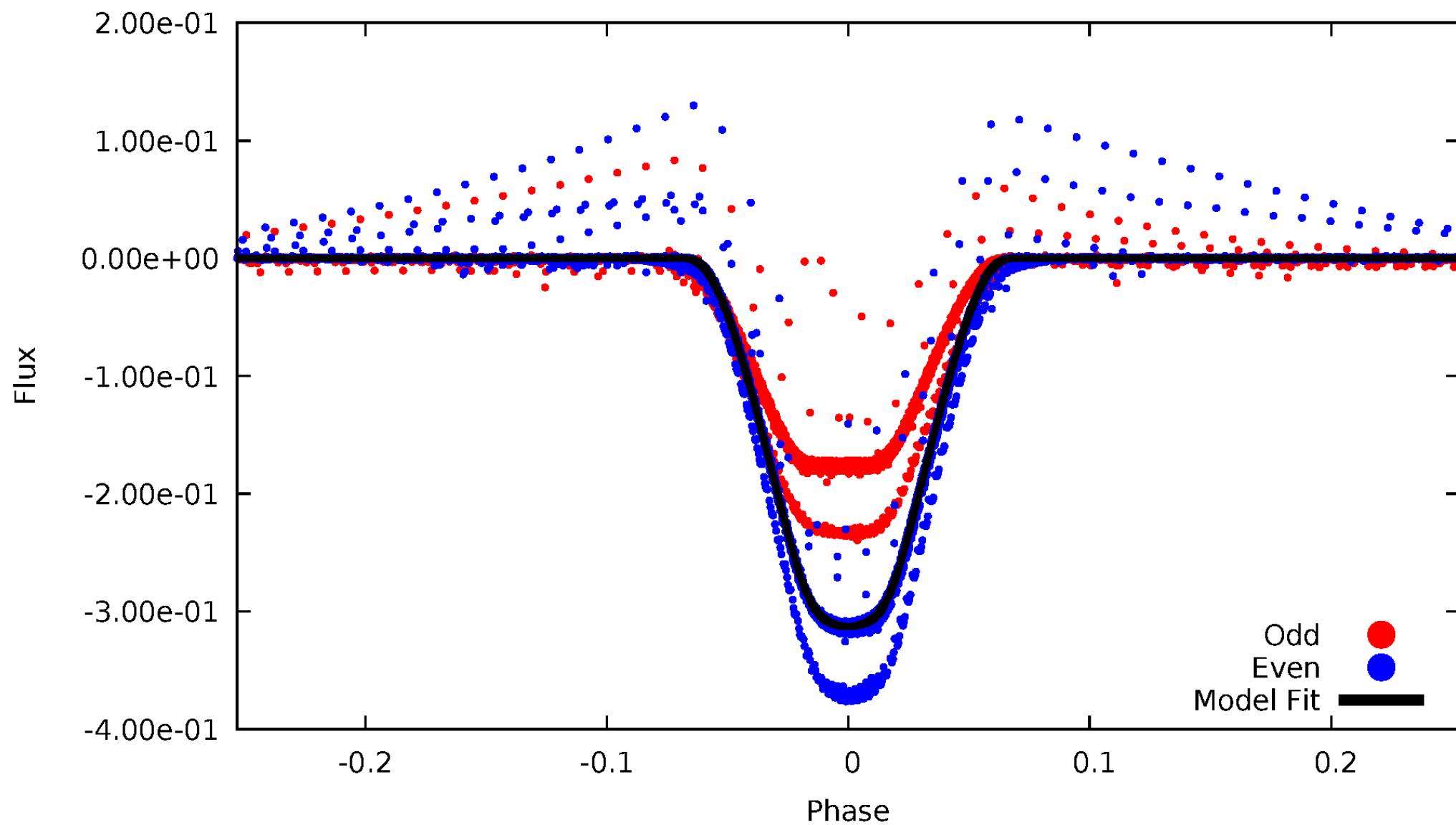


TCE 005288543-01



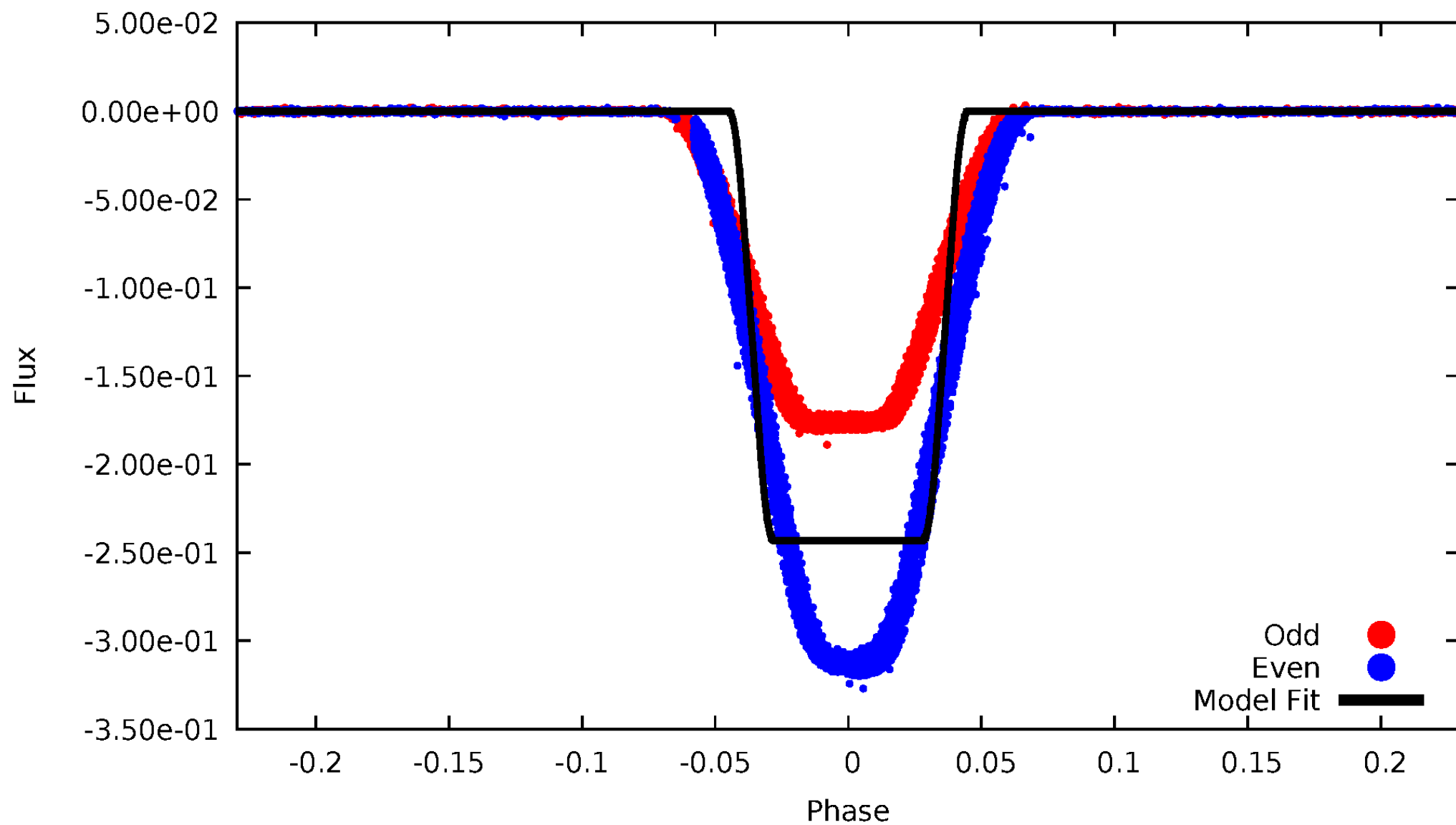
DV Odd/Even

TCE 005288543-01



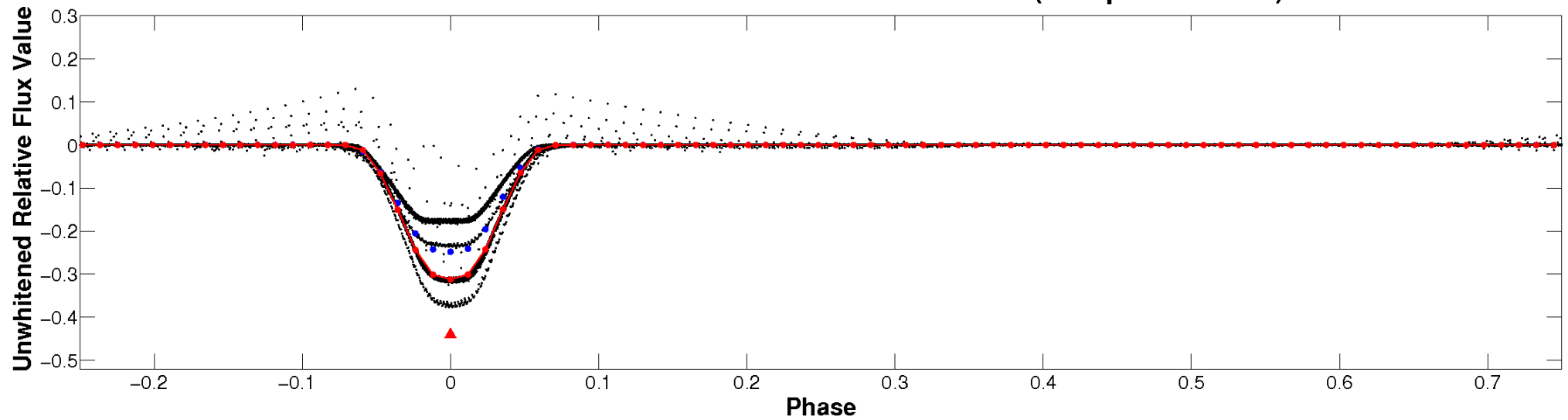
ALT Odd/Even

TCE 005288543-01

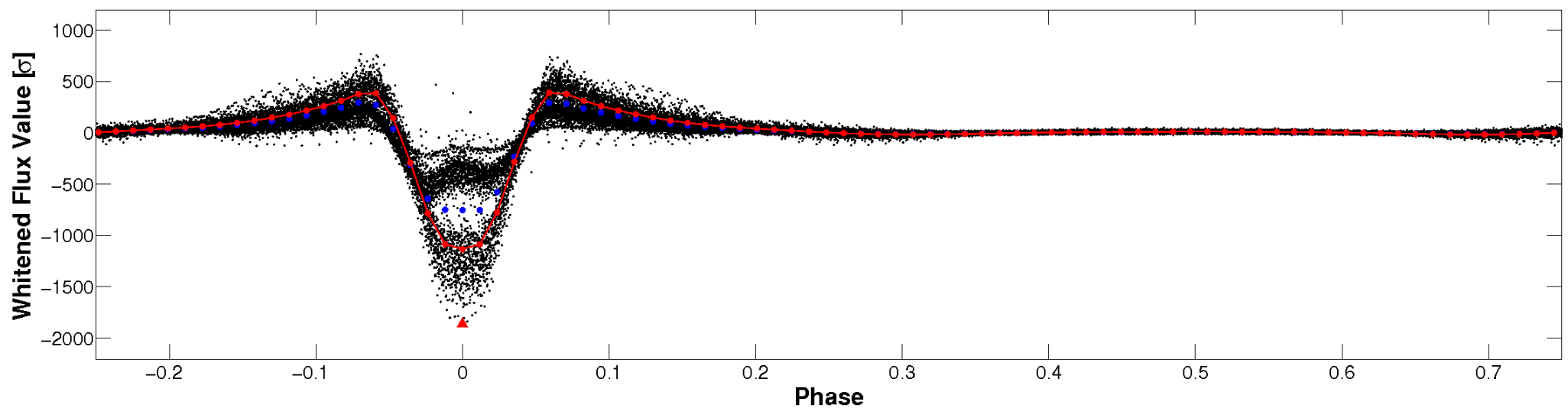


Non-Whitened Vs. Whitened Light Curve

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

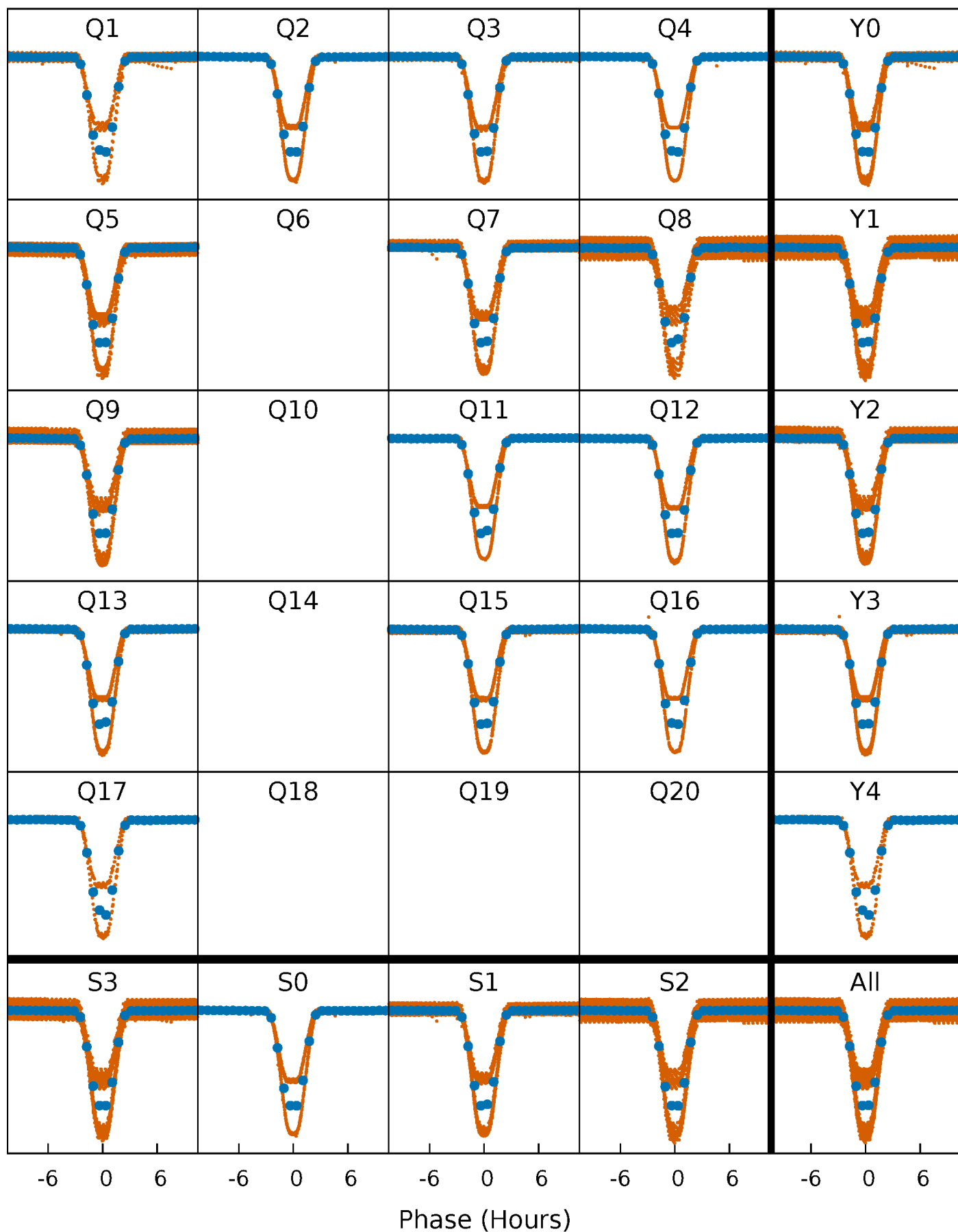


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



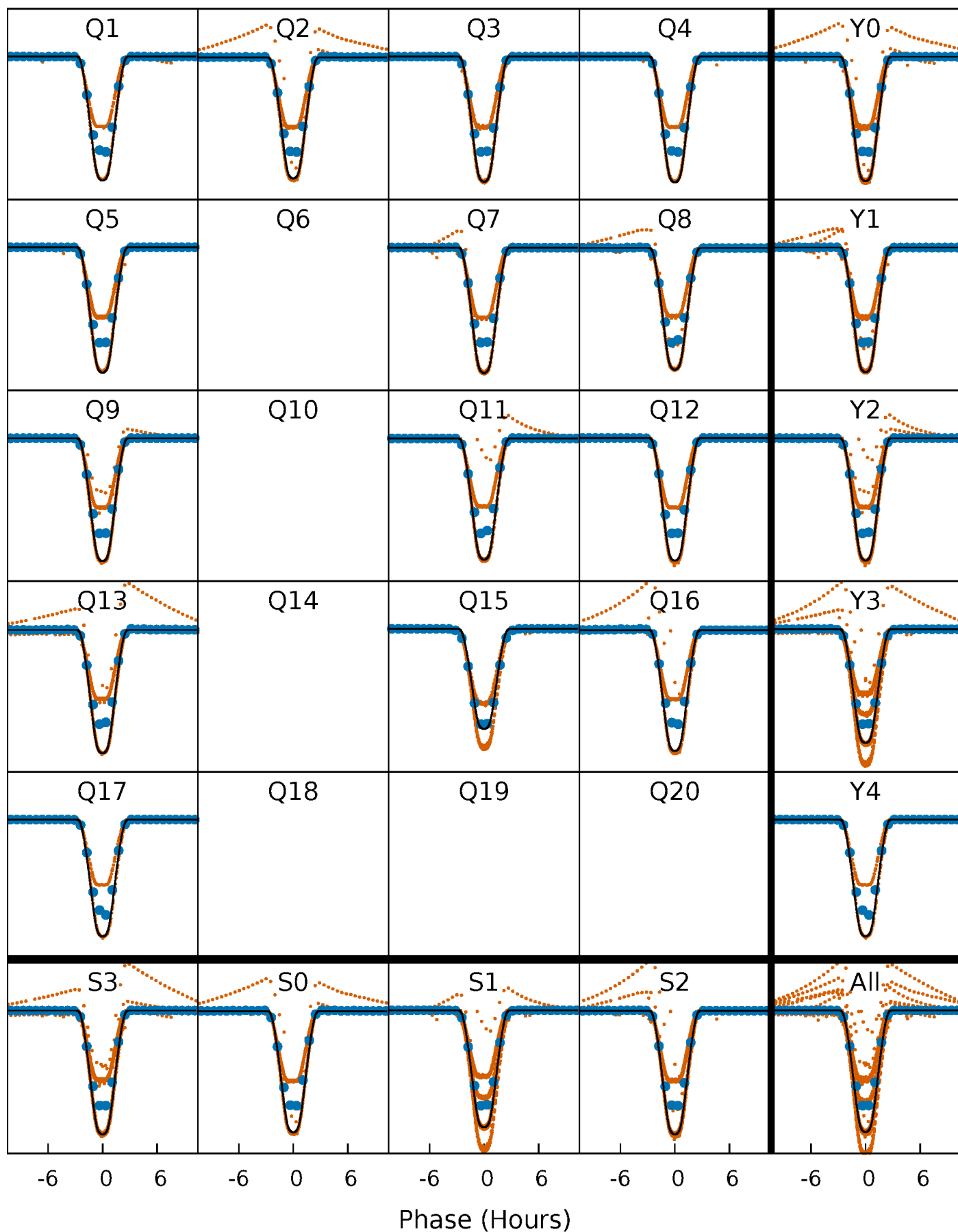
PDC Quarter-Phased Transit Curves

TCE 005288543-01 P= 1.728536 Days $T_0=131.806865$ (BKJD)



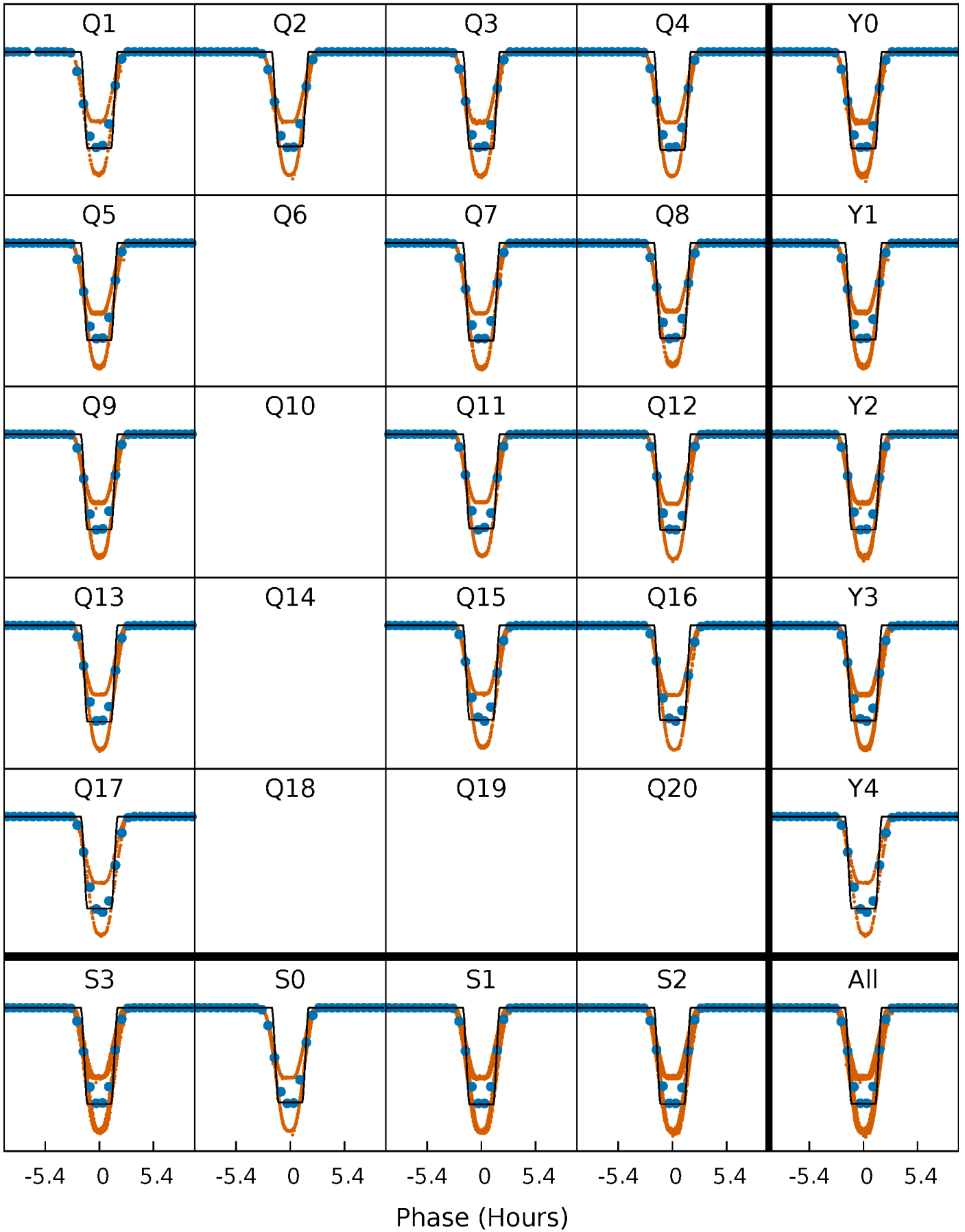
DV Quarter-Phased Transit Curves

TCE 005288543-01 P= 1.728536 Days $T_0=131.806865$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

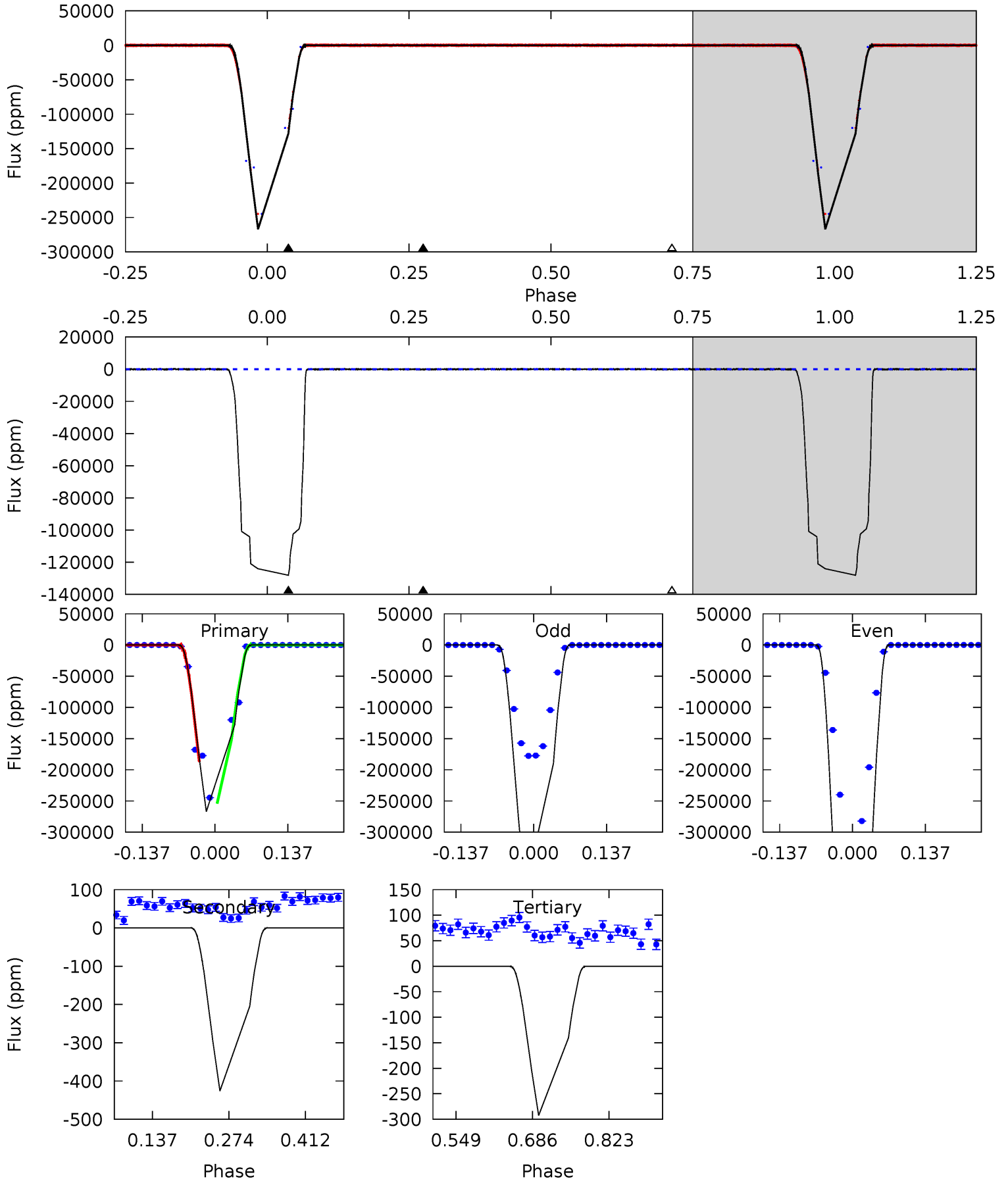
TCE 005288543-01 P= 1.728525 Days $T_0=131.809929$ (BKJD)



DV Model-Shift Uniqueness Test

005288543-01, P = 1.728536 Days, E = 130.078329 Days

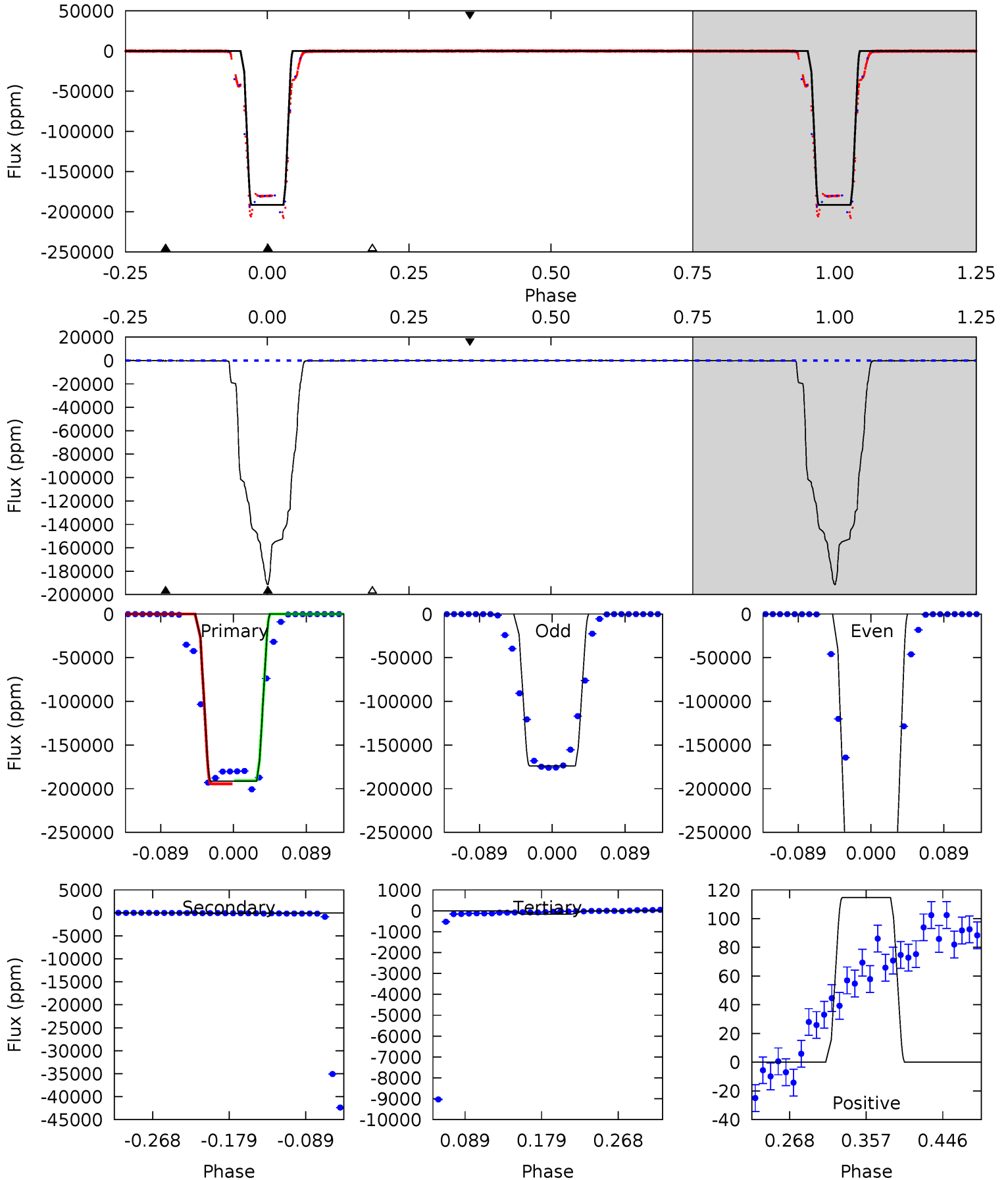
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12072	19.3	13.2	0	4.50	1.49	4.25	12059	12072	6.03	19.3	11889	1.01	0.00	0



Alt Model-Shift Uniqueness Test

005288543-01, P = 1.728525 Days, E = 130.081404 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8176	8.22	6.71	4.90	4.59	1.70	3.05	8169	8171	1.51	3.31	6062	1.24	0.00	0



Stellar Parameters For KIC 005288543

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6526^{+181}_{-250}	$4.182^{+0.180}_{-0.180}$	$-0.200^{+0.250}_{-0.300}$	$1.482^{+0.442}_{-0.362}$	$1.223^{+0.188}_{-0.206}$	$0.529^{+0.498}_{-0.255}$
	+3%/-4%	+4%/-4%	+125%/-150%	+30%/-24%	+15%/-17%	+94%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 005288543-01 / KOI 6555.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-204 ± 11	$85.19^{+14.21}_{-10.80}$	2821^{+214}_{-204}	-2964^{+123}_{-129}	$0.014^{+0.004}_{-0.003}$
Alt.	-192 ± 23	$80.32^{+13.17}_{-10.34}$	2823^{+225}_{-217}	-2965^{+132}_{-136}	$0.015^{+0.005}_{-0.004}$

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 $A_{obs} \gg 1.0$

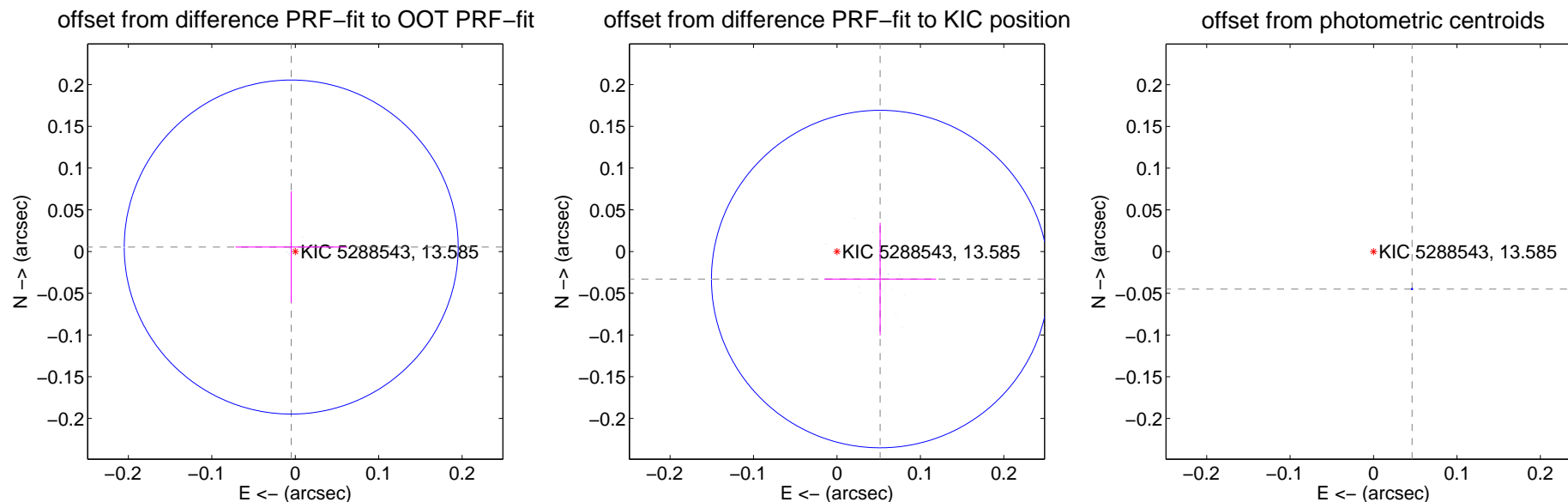
DV Centroid Data

Supplemental centroid analysis for 005288543-01. Kepler magnitude: 13.59. Transit SNR 40791.35

There are 14 quarters with good PRF difference image offsets

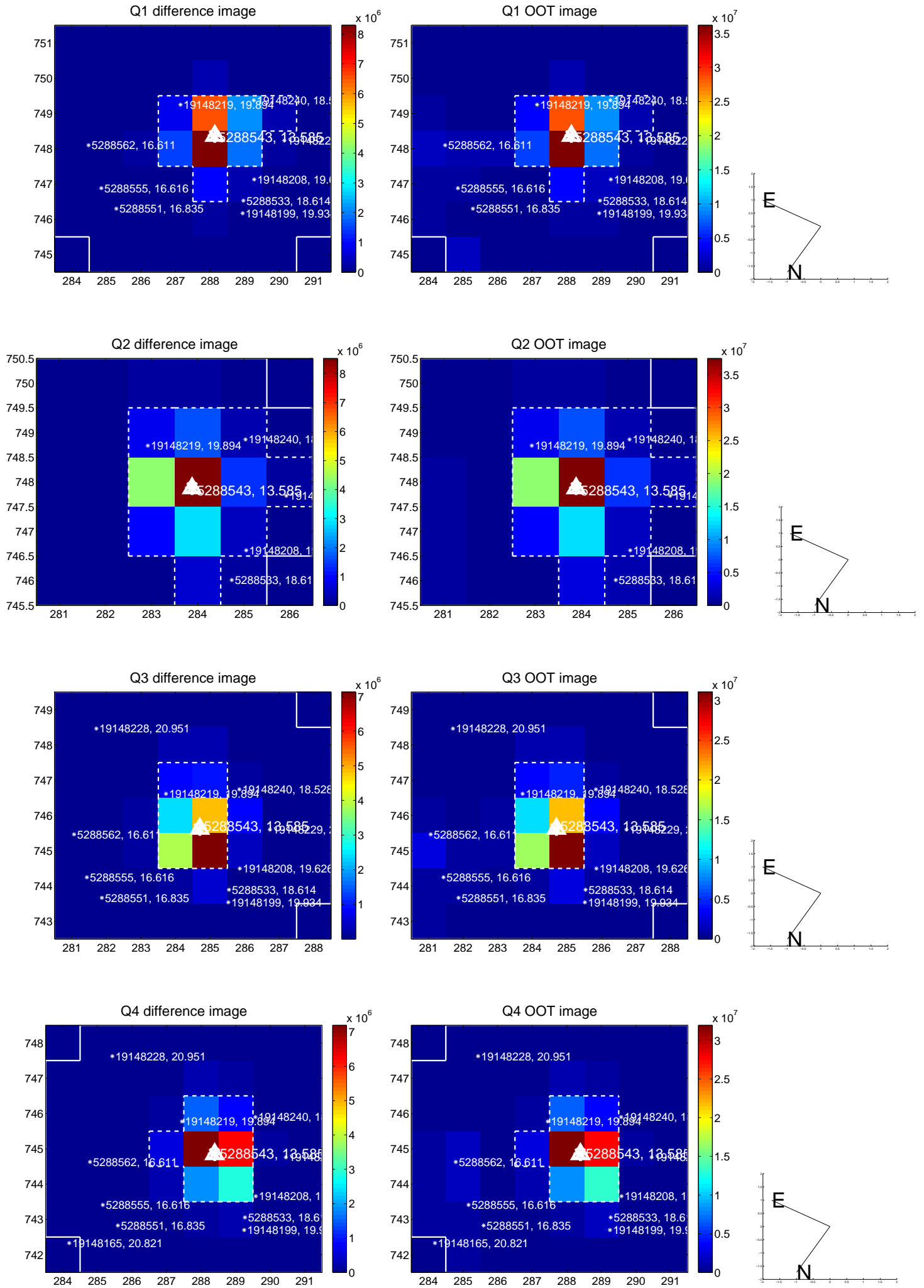
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.11	0.005 ± 0.067	0.005 ± 0.067
PRF-fit source offset from KIC position	0.061 ± 0.067	0.91	-0.052 ± 0.067	-0.033 ± 0.067
photometric centroid source offset	0.06 ± 0.00	236.12	-0.05 ± 0.00	-0.04 ± 0.00

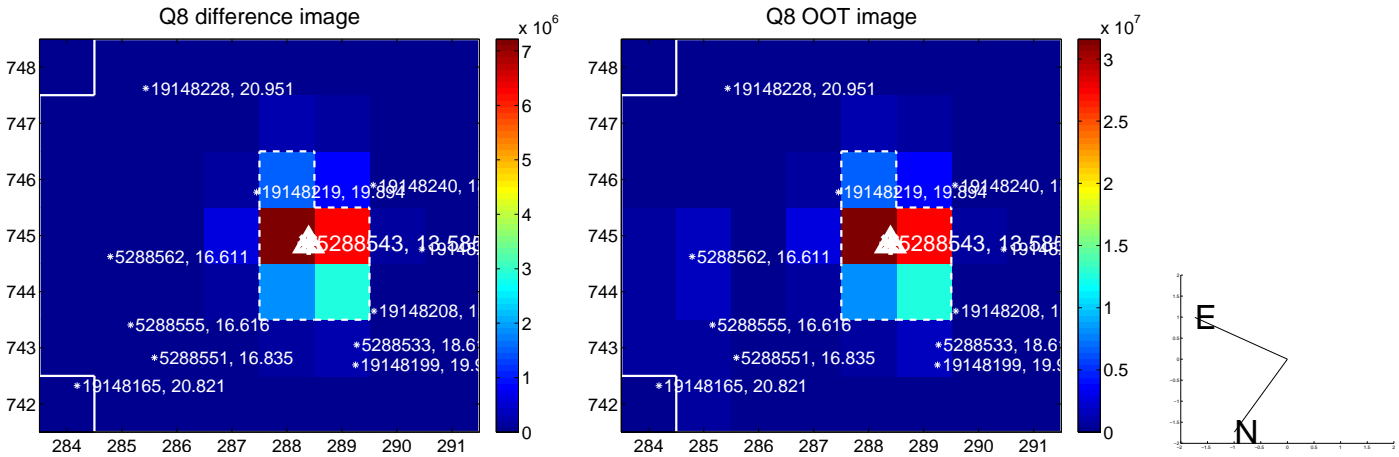
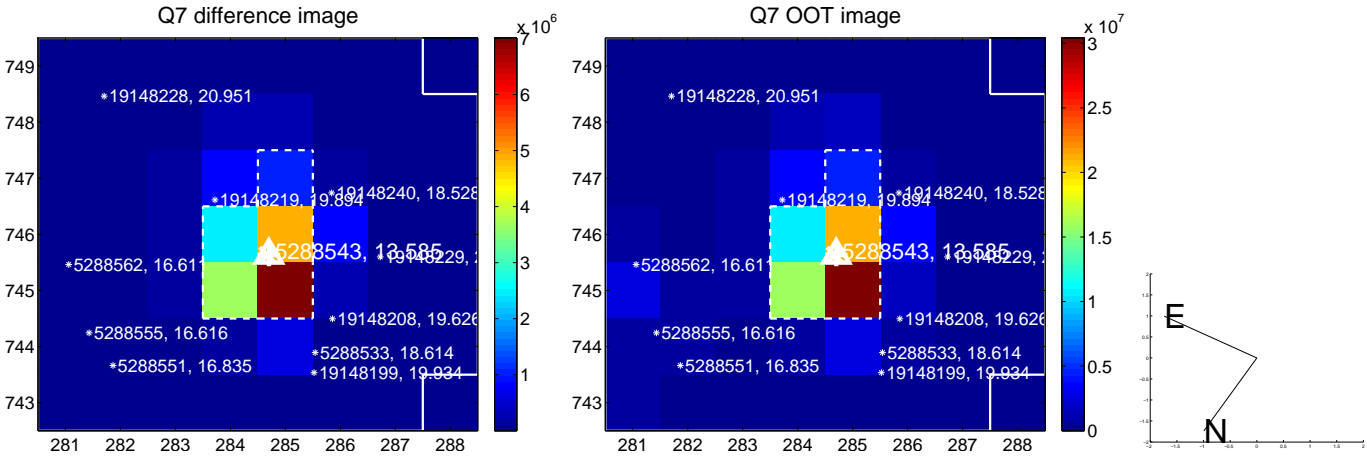
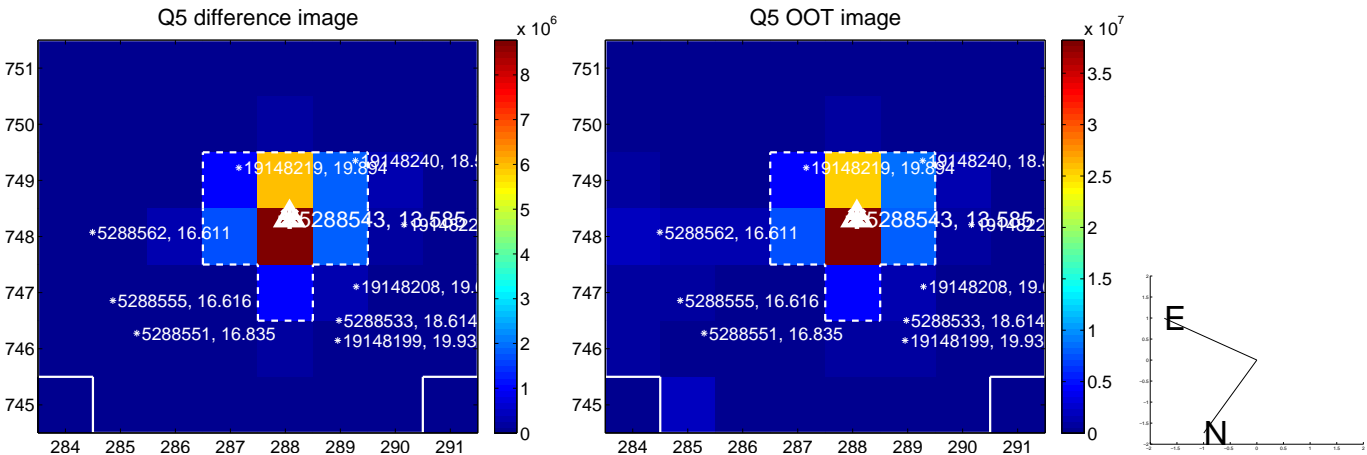


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

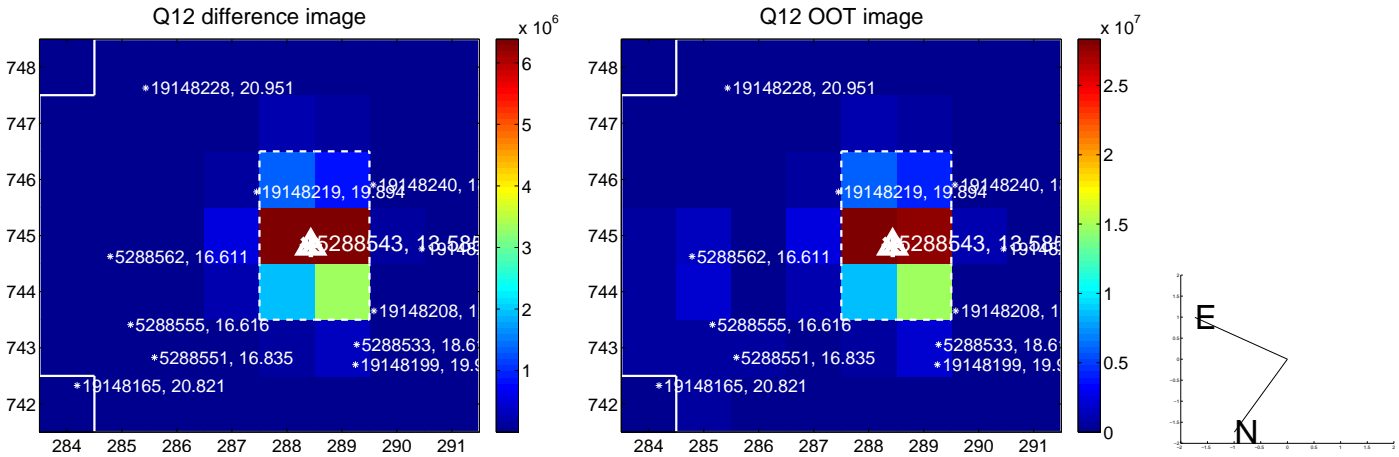
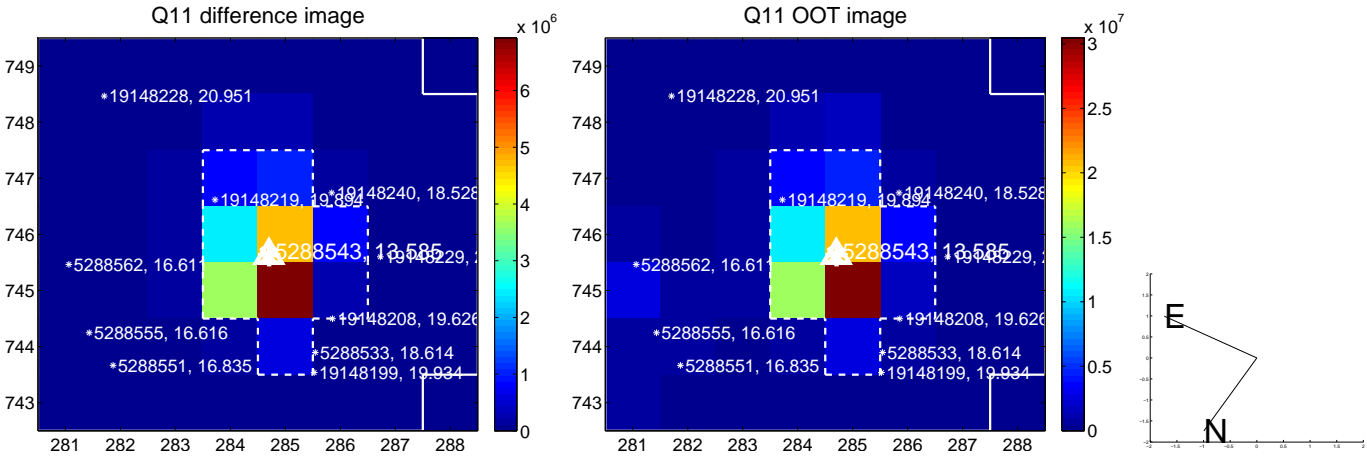
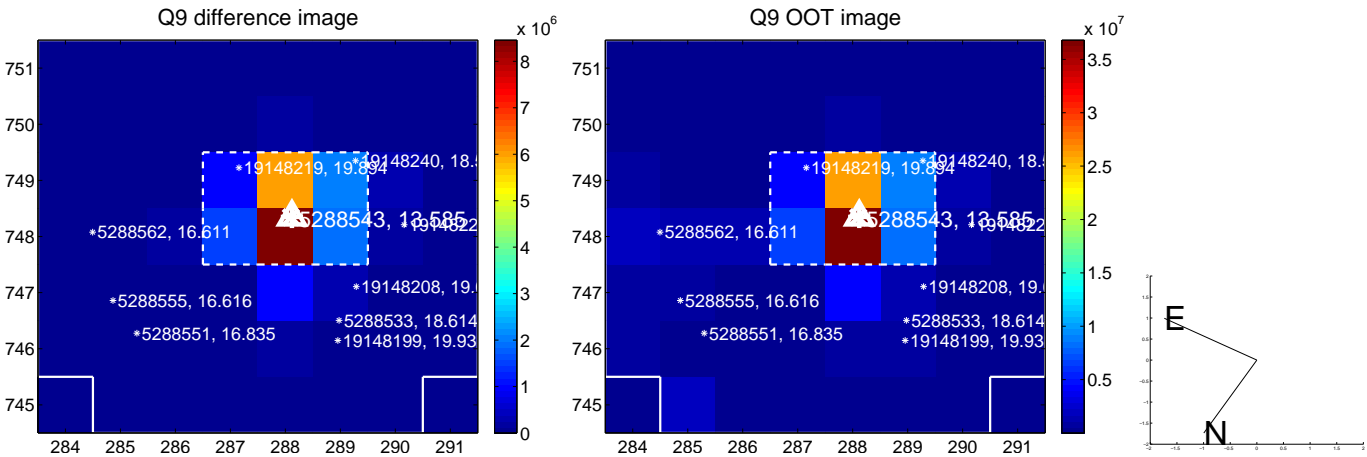
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



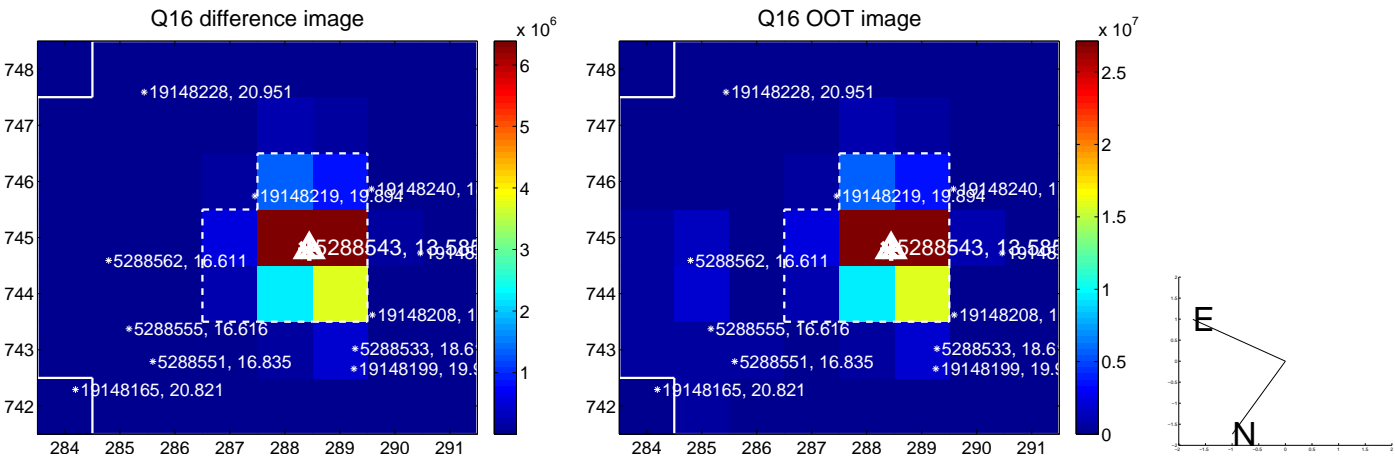
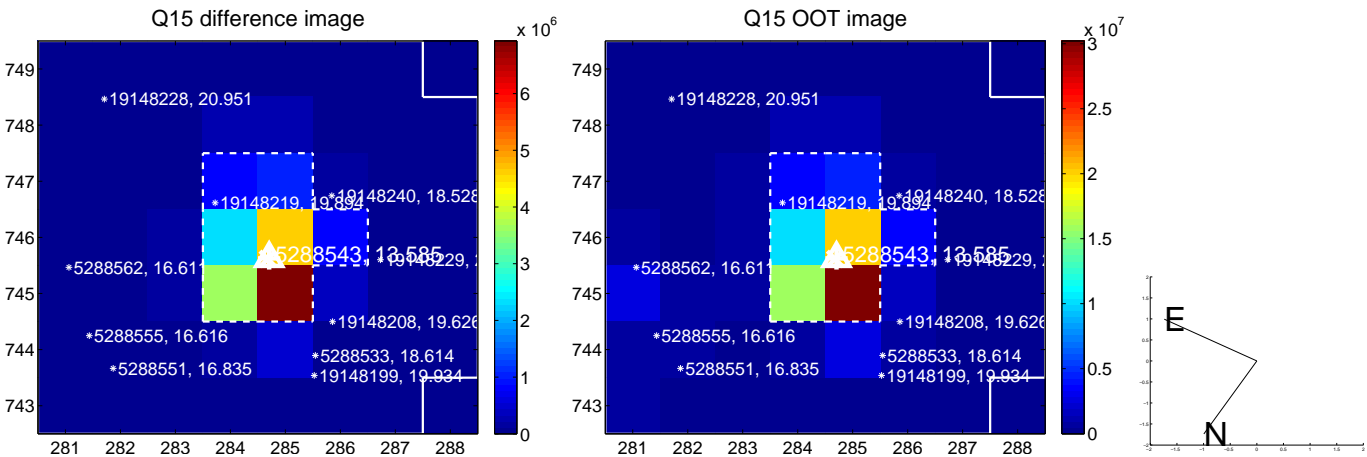
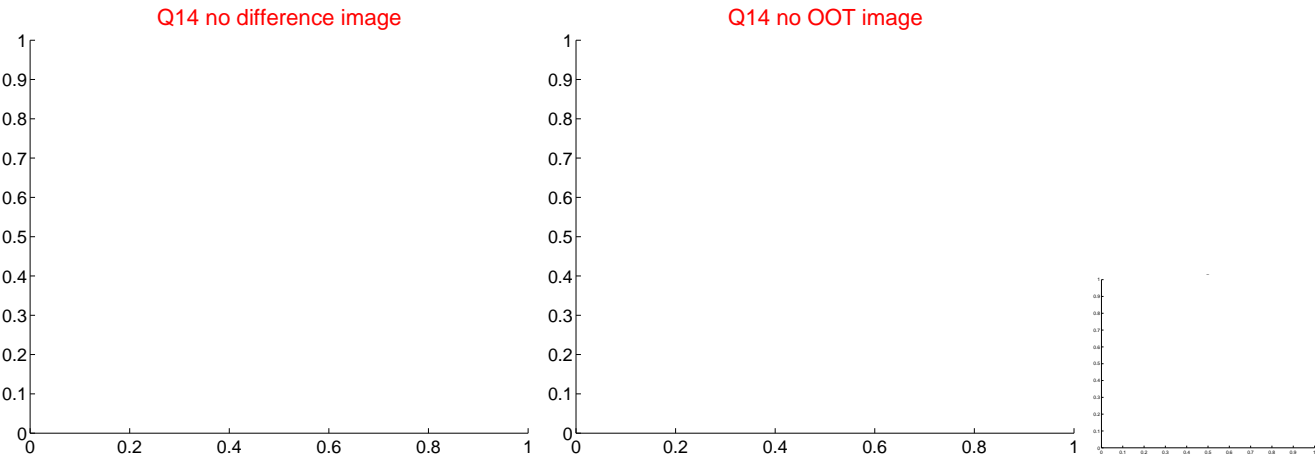
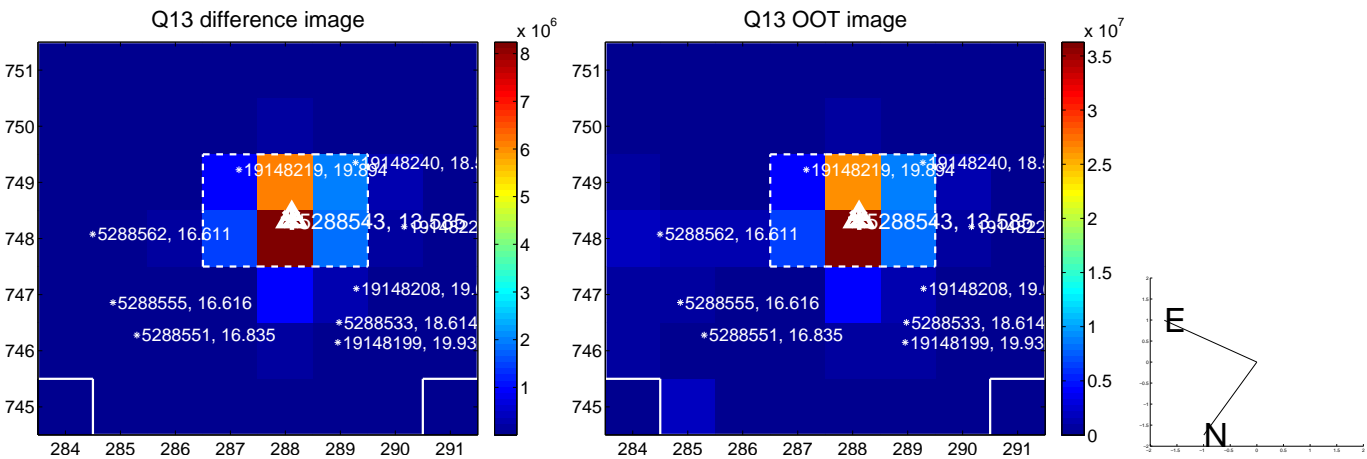
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



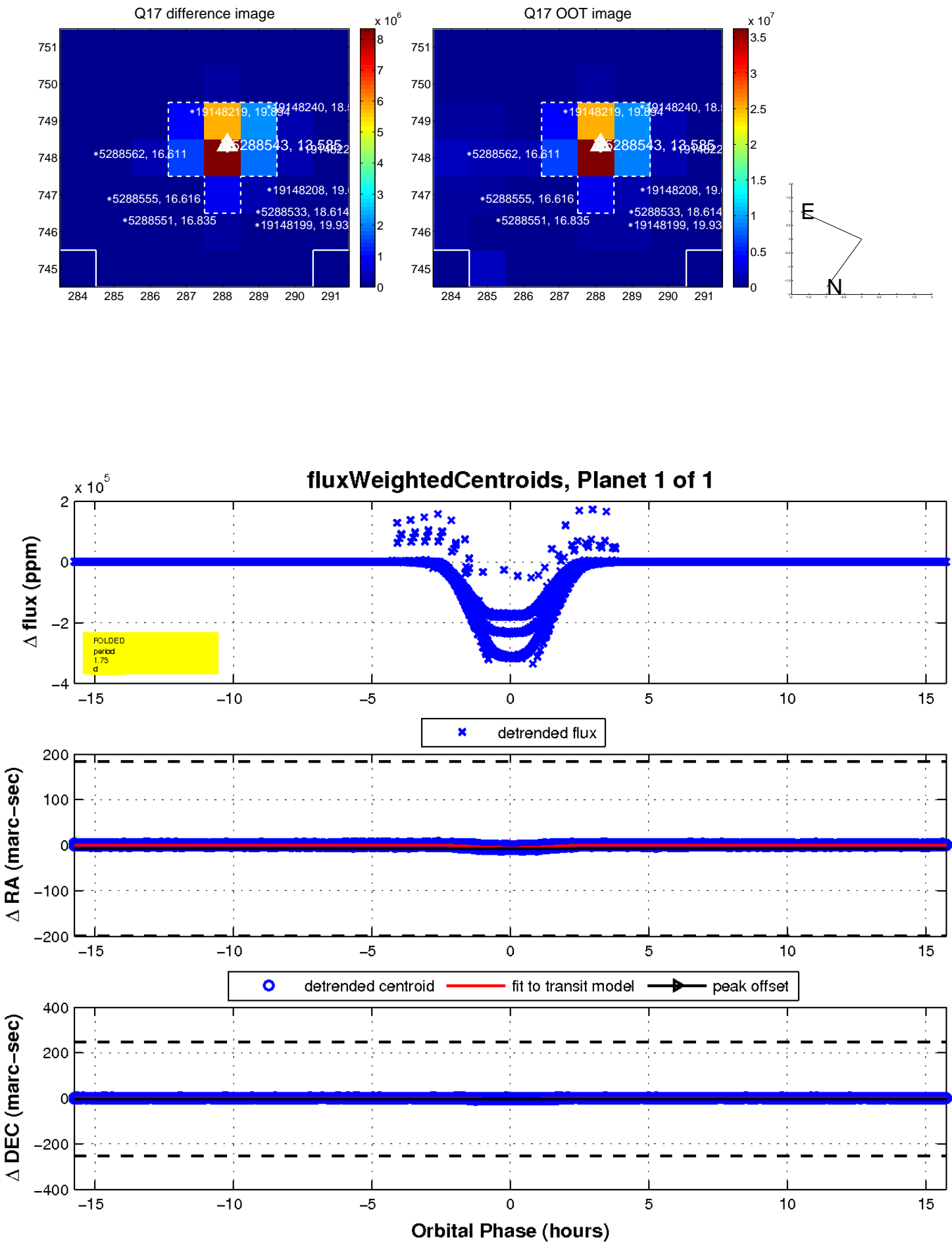
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UKIRT Image

Declination

