

KIC 005648425

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})
005648425-01	OBS	No	4.517747	132.795889	0.7	28.687	10.3	1.2	2.77	9005	0.23	10175.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005648425-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL — LPP_DV — MOD_NONUNIQ_DV — CENT_SATURATED

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

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

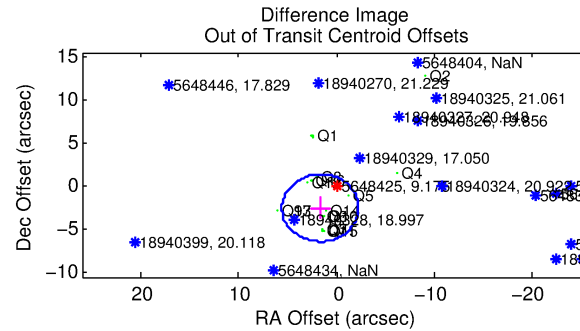
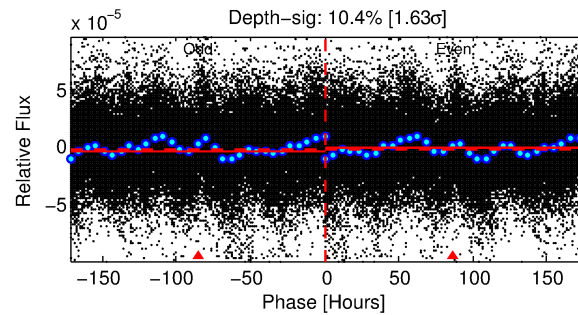
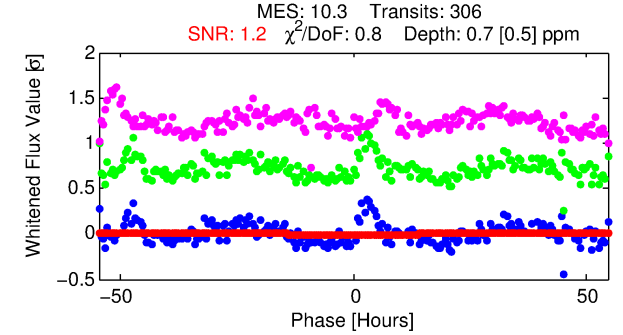
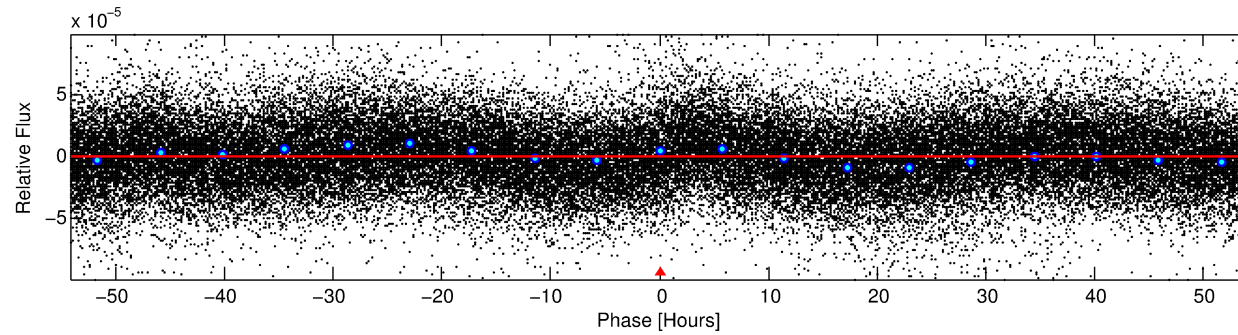
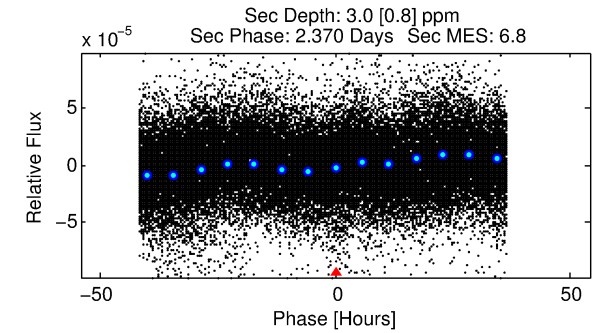
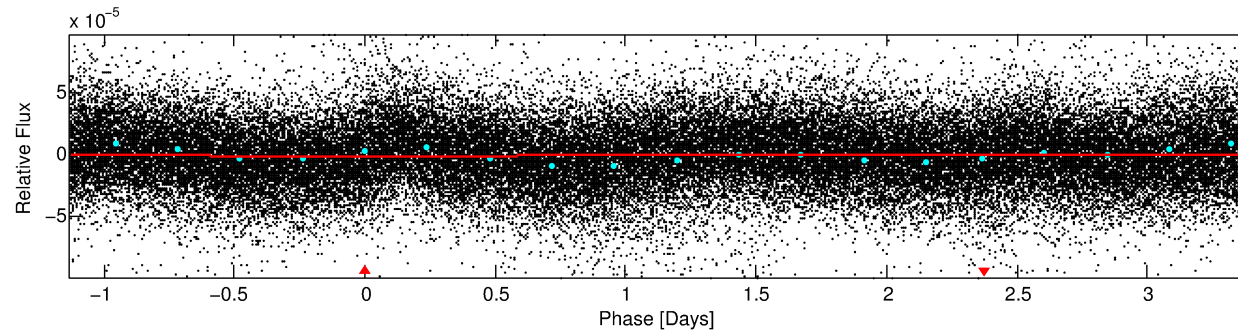
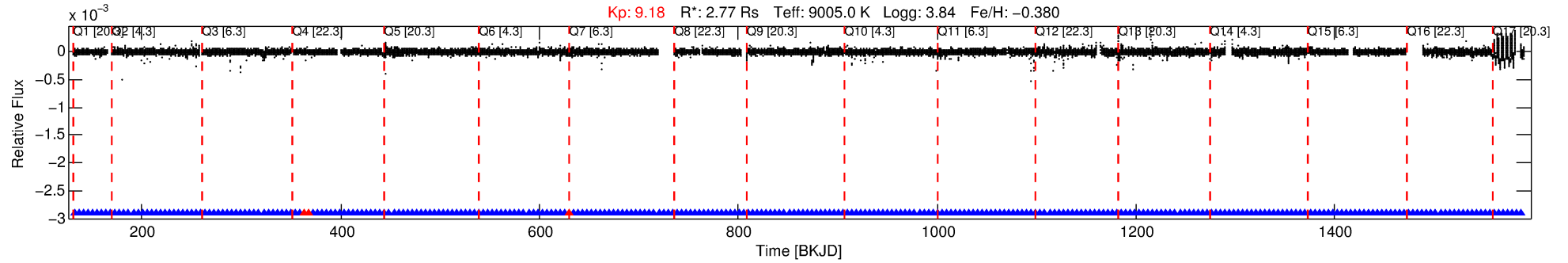
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005648425-01

No Significant Match Found

DV One-Page Summary

KIC: 5648425 Candidate: 1 of 1 Period: 4.518 d



DV Fit Results:

Period = 4.51775 [0.00040] d
Epoch = 132.7959 [0.0576] BKJD
Rp/R* = 0.0008 [0.0012]
a/R* = 1.35 [6.67]
b = 0.03 [398.35]
Seff = 10175.75 [6917.45]
Teff = 2561 [435] K
Rp = 0.23 [0.39] Re
a/R* = 0.0667 [0.0271] AU
Ag = 139.11 [469.41] [0.29σ]
Teffp = 13599 [11274] K [0.98σ]

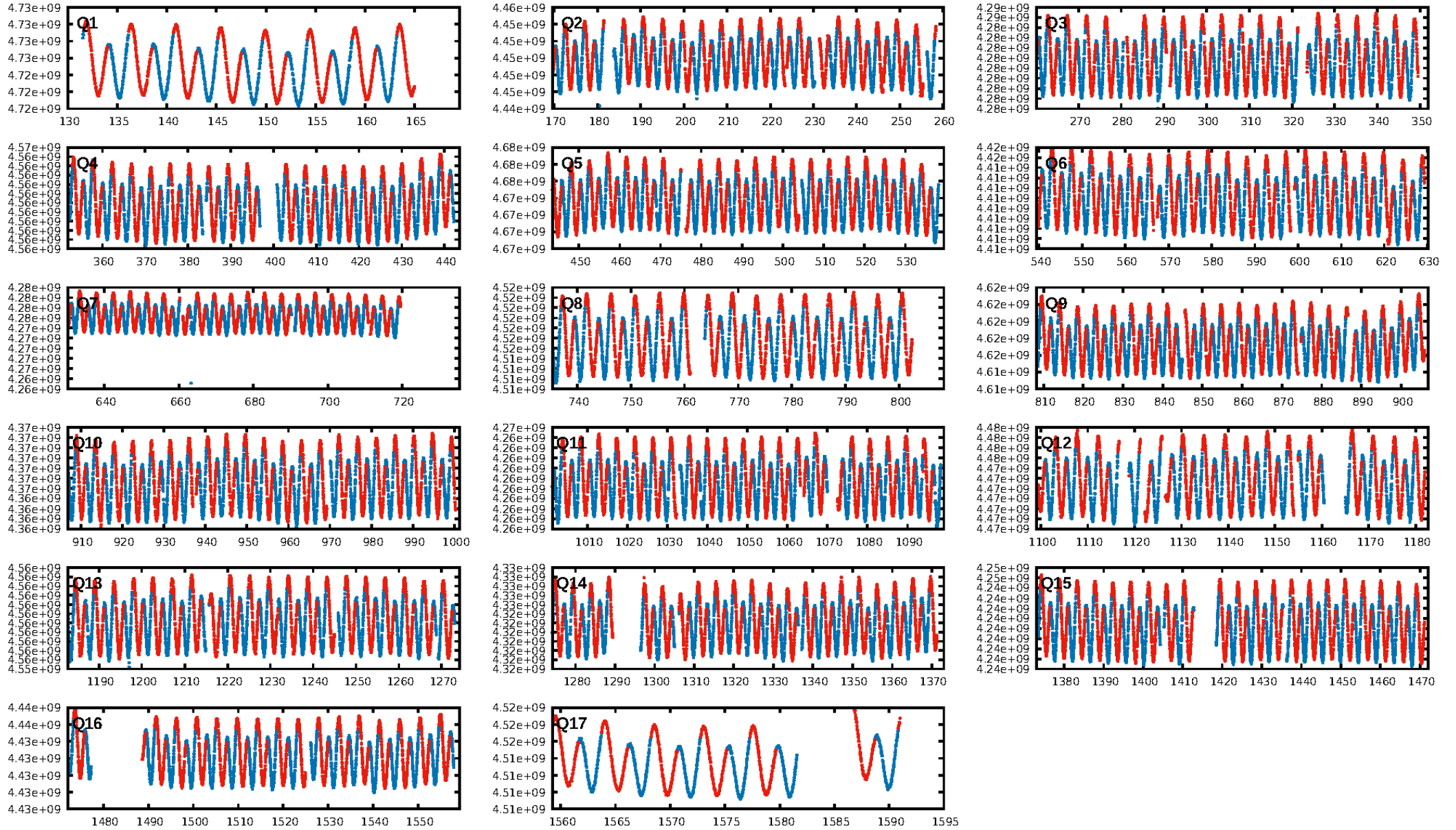
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.76e-28
RollingBand-fgt: 0.99 [289/292]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.006 arcsec [2.31σ]
KicOffset-rm: 4.442 arcsec [3.67σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

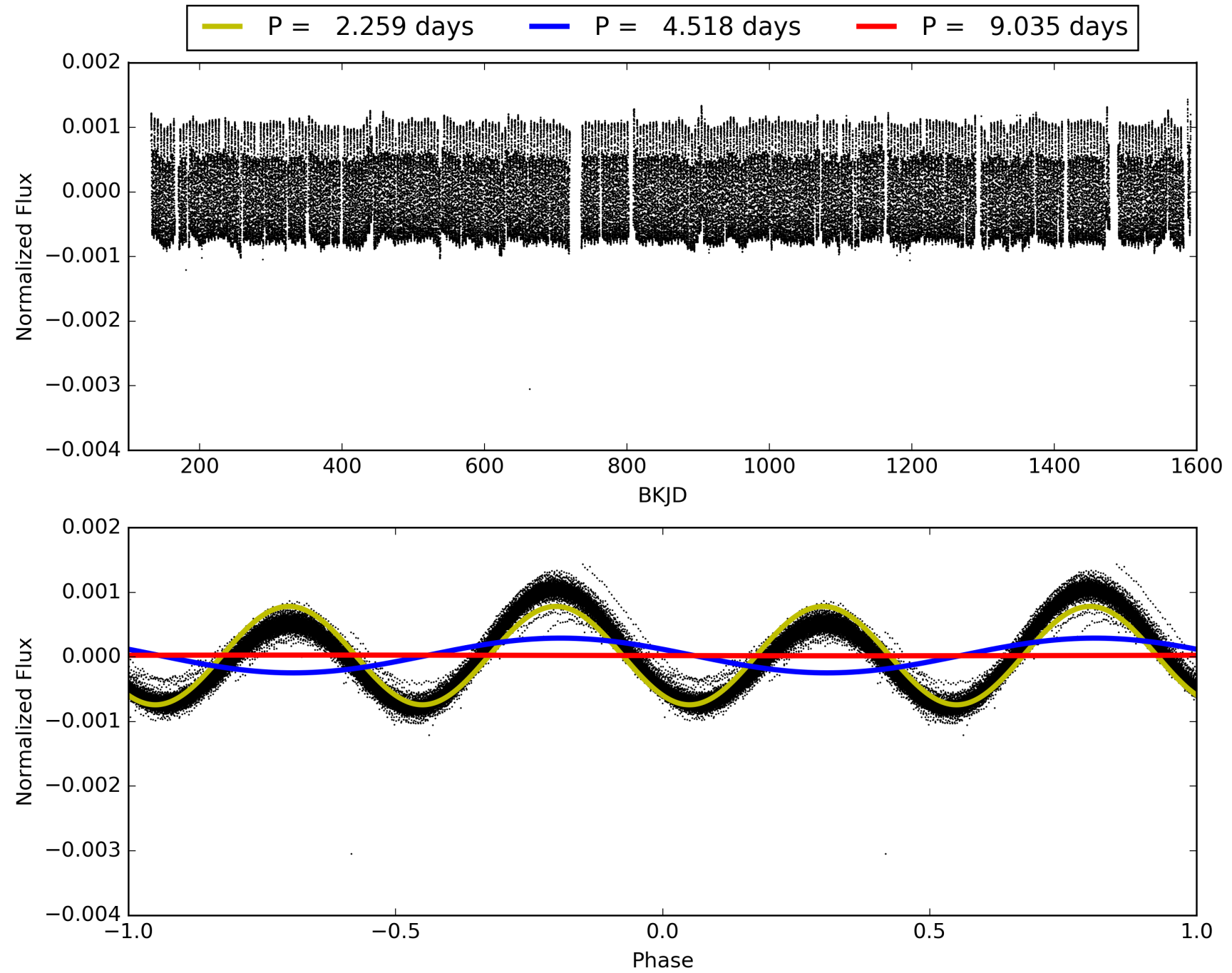
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:52:10 Z

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

TCE 005648425-01, PDC Light Curves

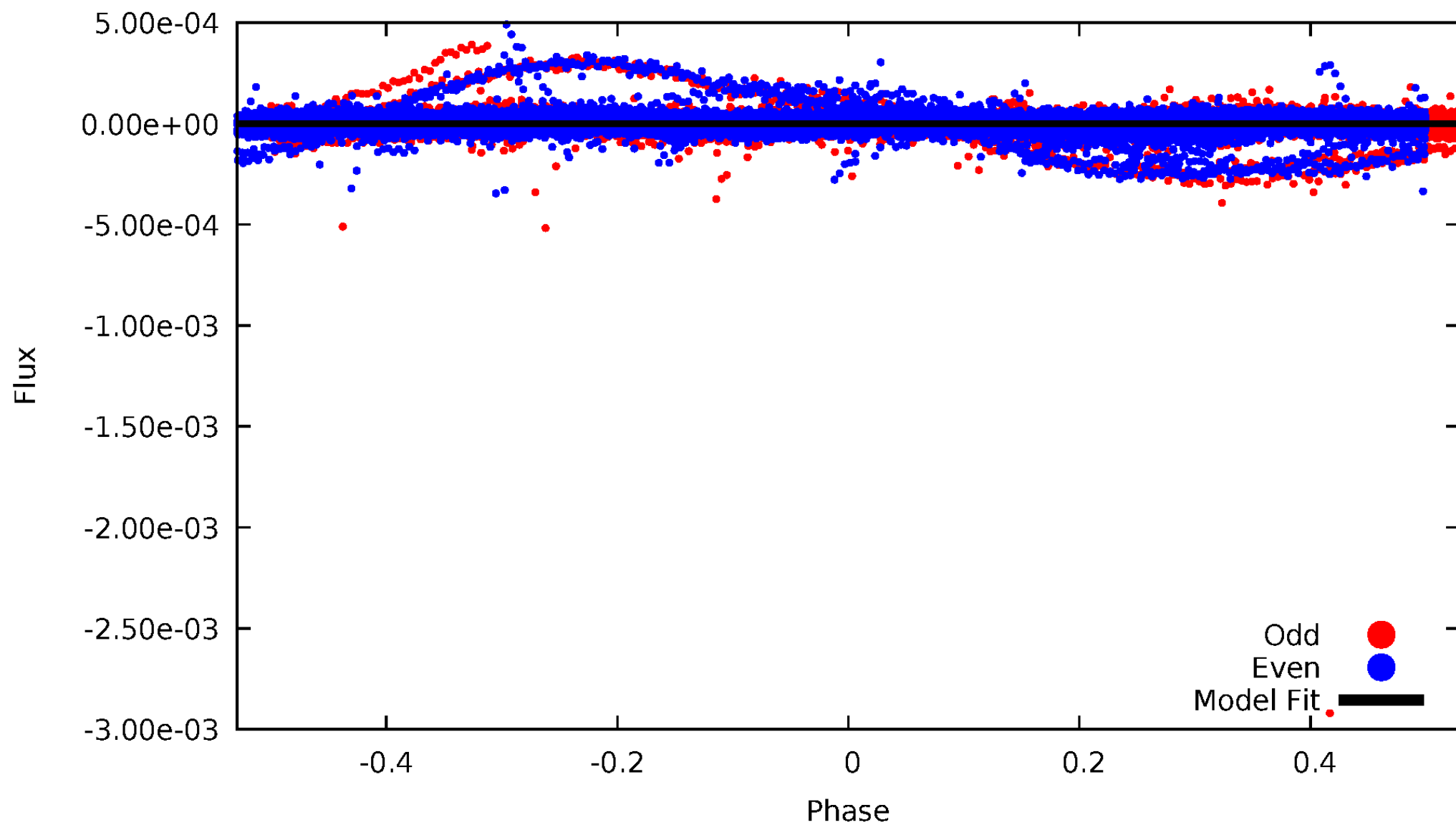


TCE 005648425-01



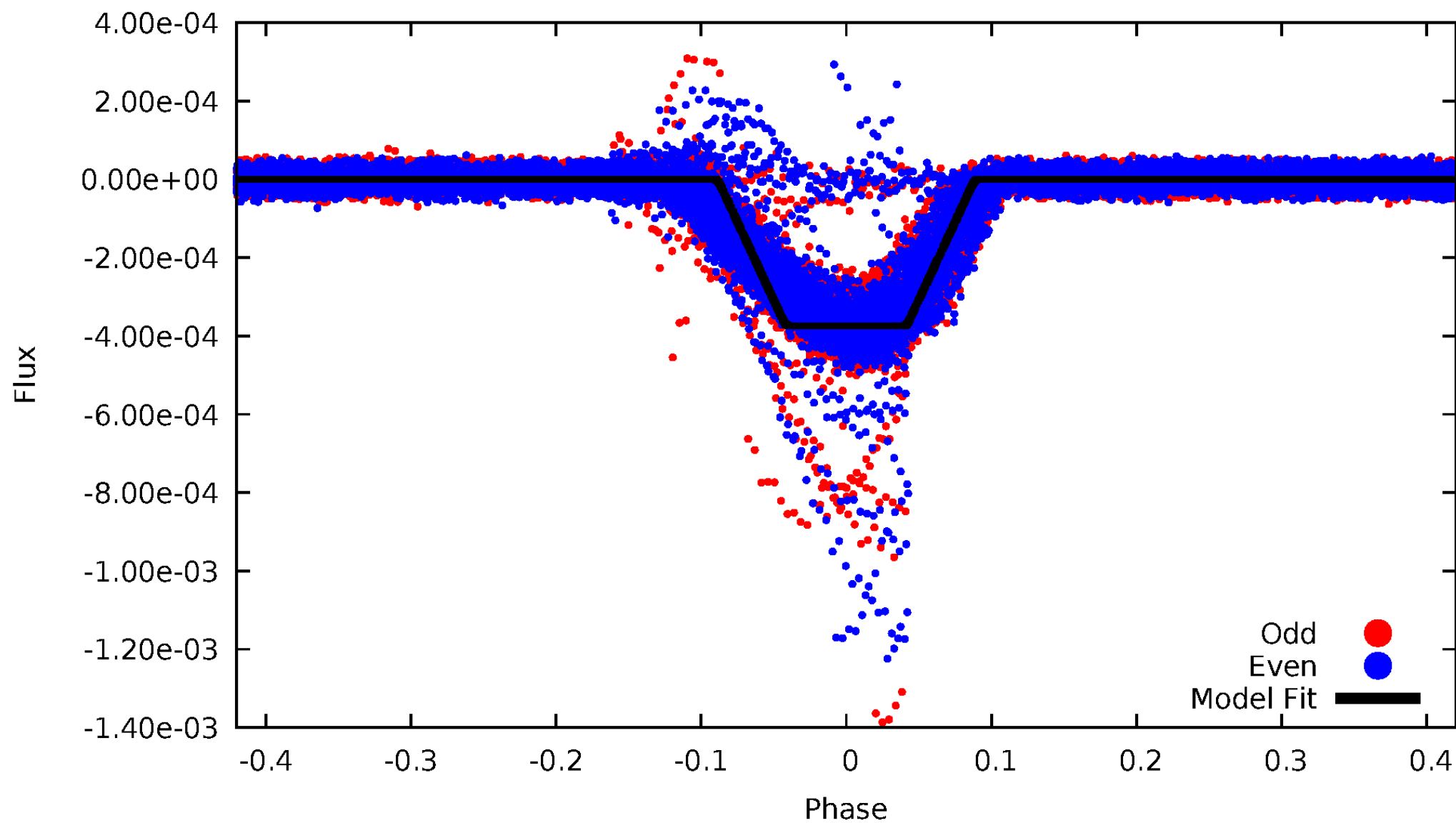
DV Odd/Even

TCE 005648425-01



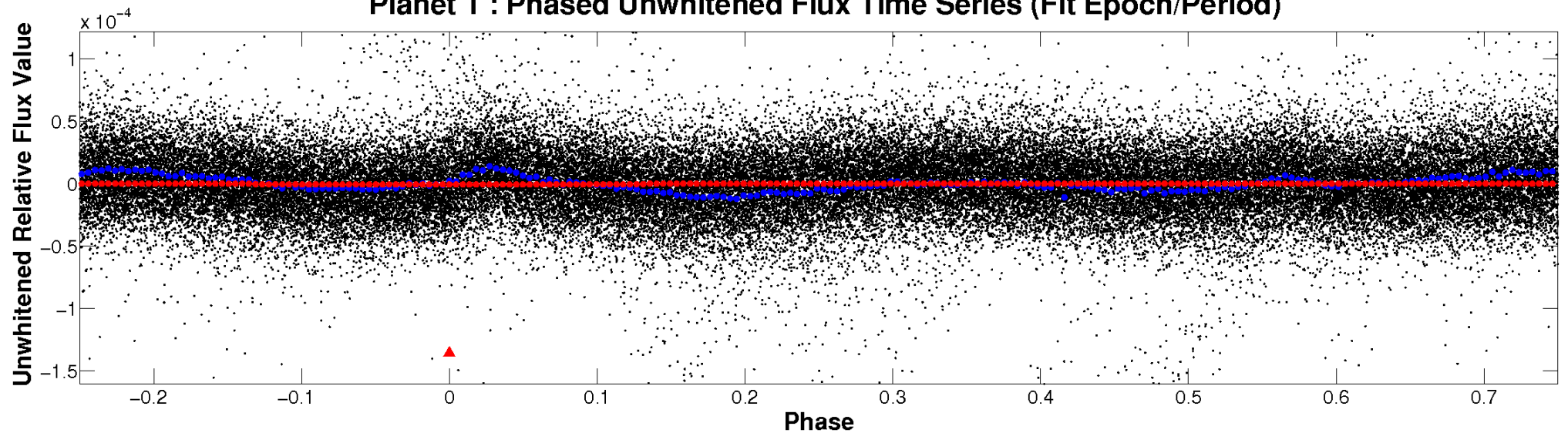
ALT Odd/Even

TCE 005648425-01

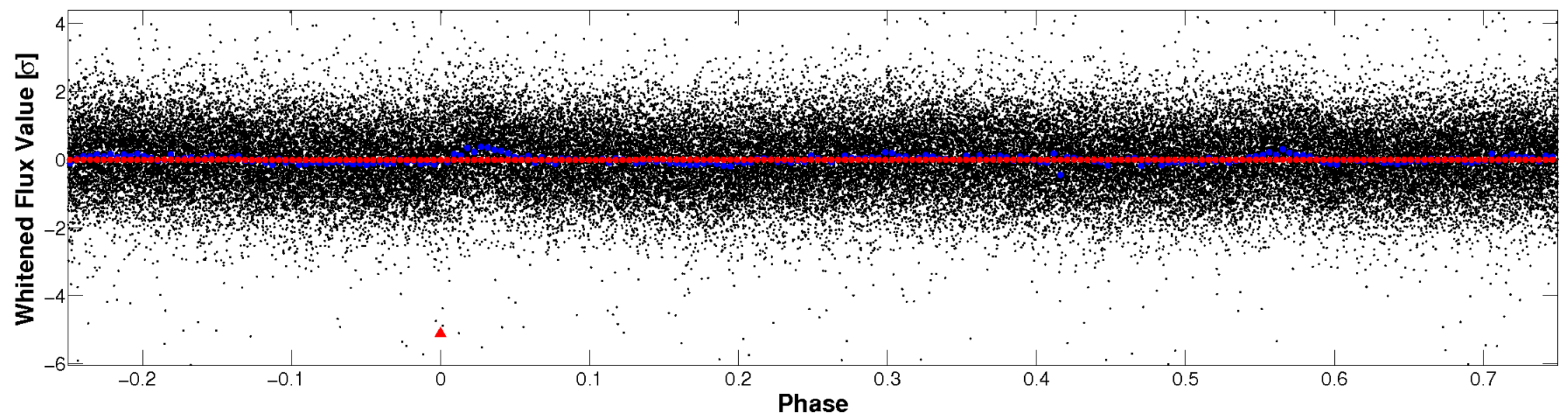


Non-Whitened Vs. Whitened Light Curve

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

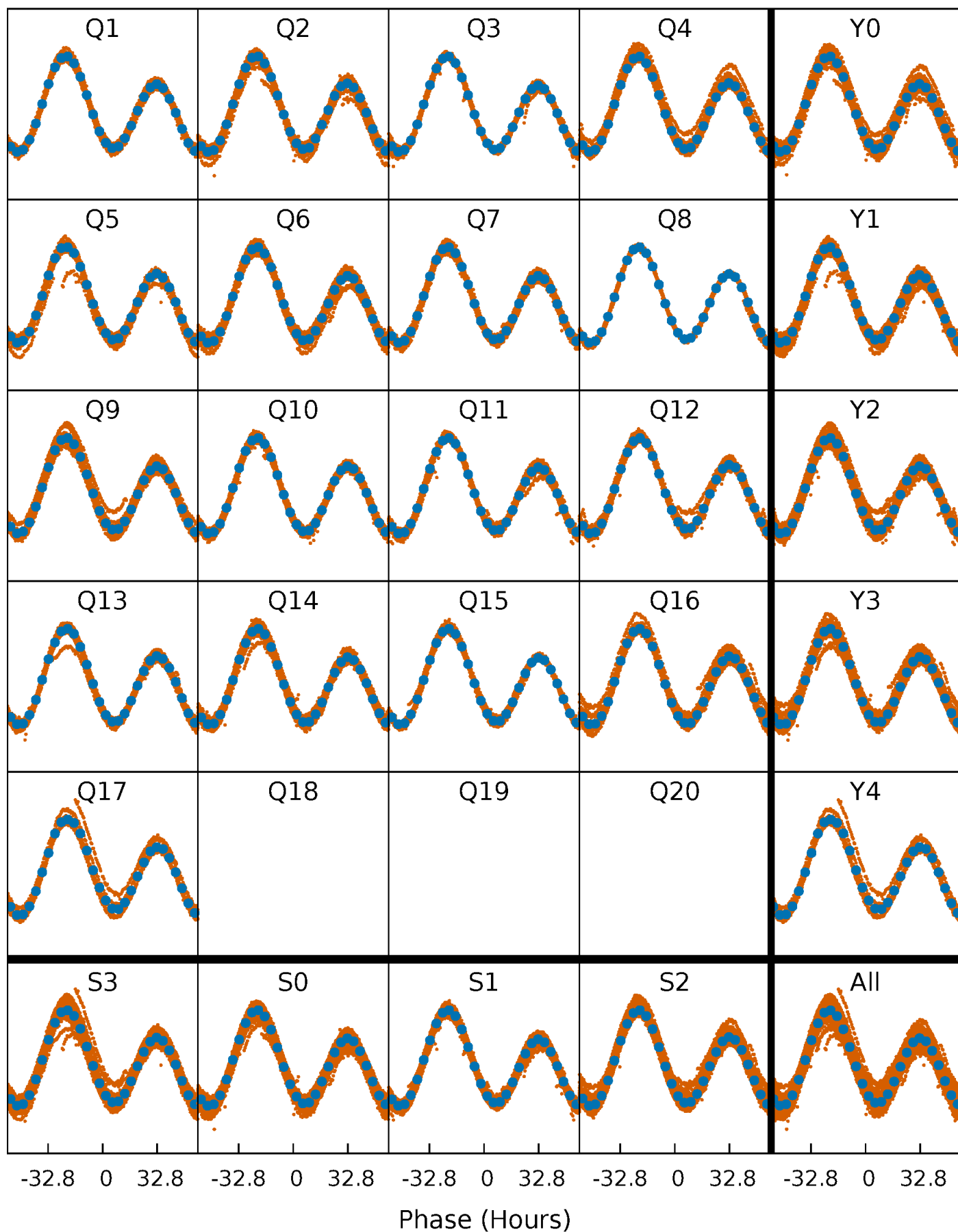


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



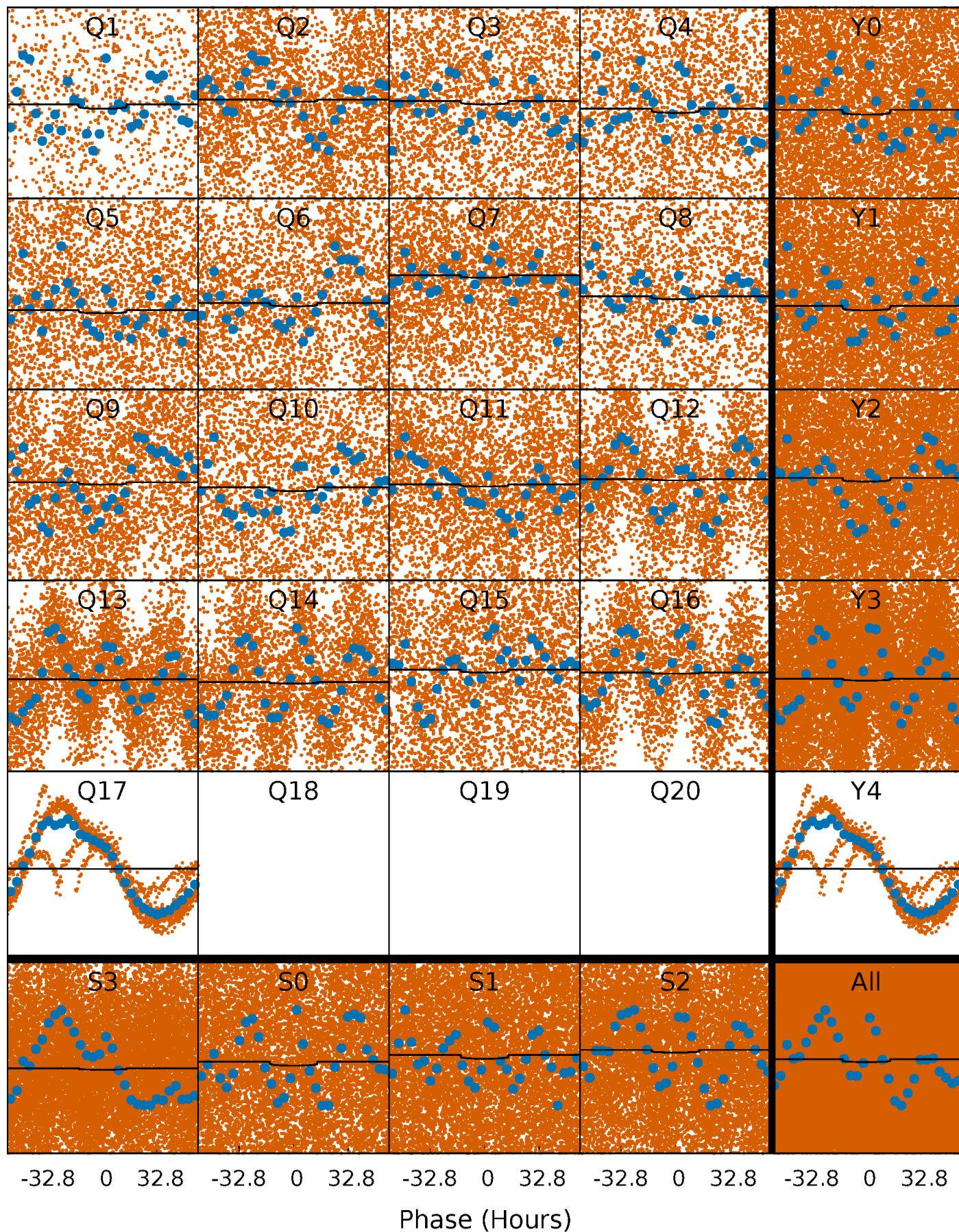
PDC Quarter-Phased Transit Curves

TCE 005648425-01 P= 4.517747 Days $T_0=132.795889$ (BKJD)



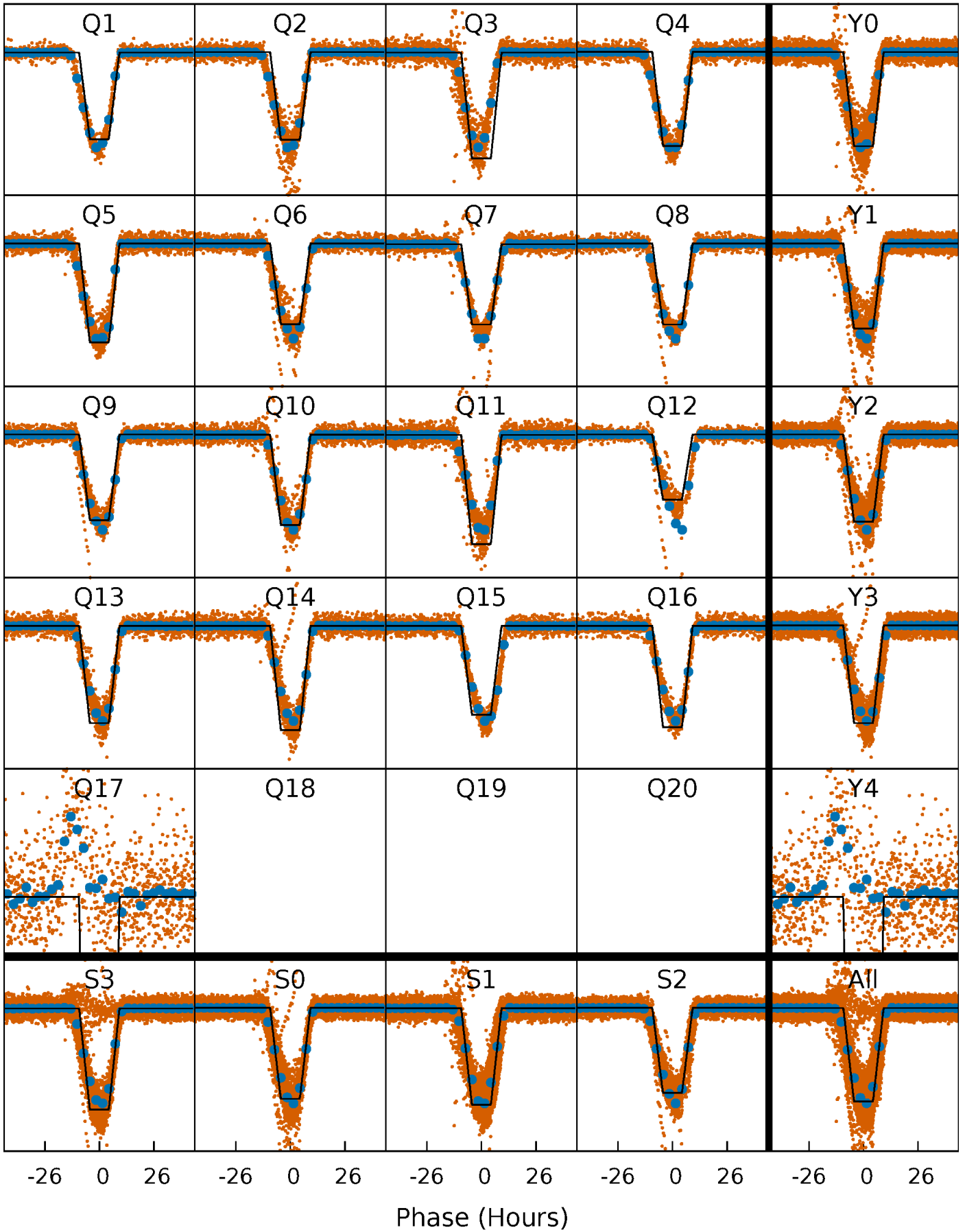
DV Quarter-Phased Transit Curves

TCE 005648425-01 P= 4.517747 Days $T_0=132.795889$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

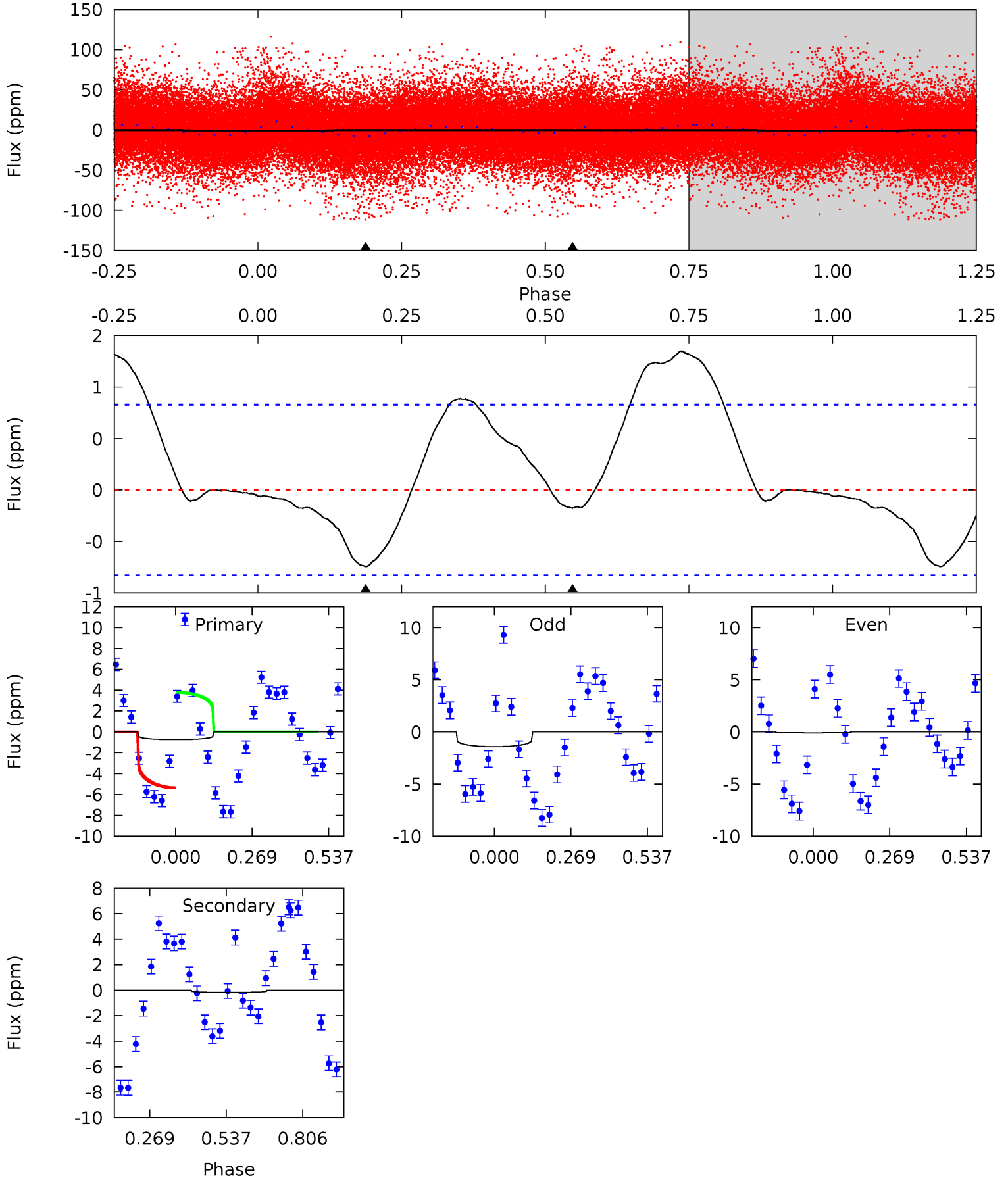
TCE 005648425-01 P= 4.517497 Days $T_0=132.828474$ (BKJD)



DV Model-Shift Uniqueness Test

005648425-01, P = 4.517747 Days, E = 128.278142 Days

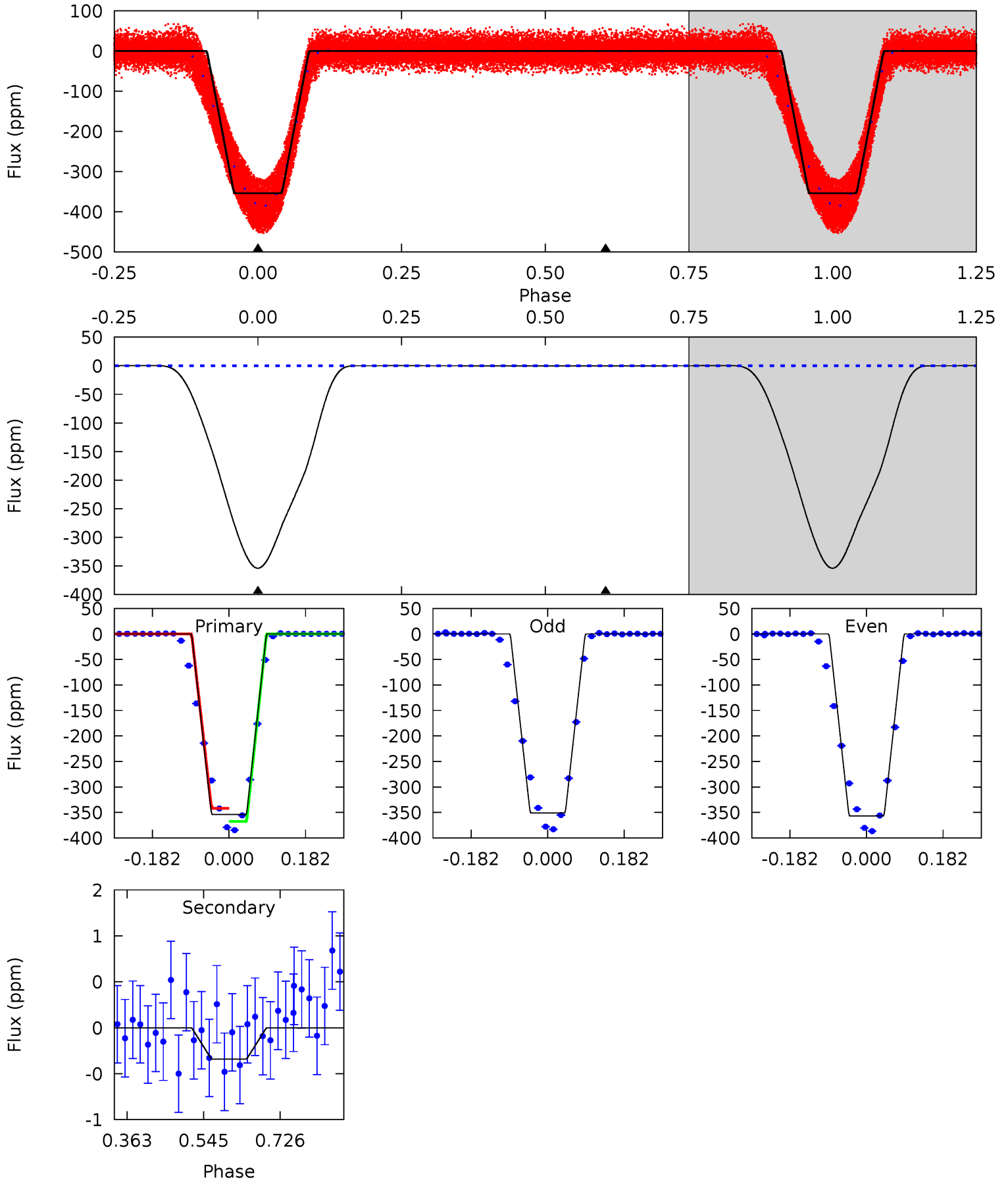
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.91	0.92	0	0	4.35	1.11	1.37	3.91	3.91	0.92	0.92	3.51	-1.01	0.64	3.83



Alt Model-Shift Uniqueness Test

005648425-01, P = 4.517497 Days, E = 128.310977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2237	2.16	0	0	4.44	1.34	0.81	2237	2237	2.16	2.16	17.3	1.00	0.00	80.0



Stellar Parameters For KIC 005648425

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9005^{+251}_{-430}	$3.840^{+0.384}_{-0.096}$	$-0.380^{+0.450}_{-0.350}$	$2.773^{+0.626}_{-1.163}$	$1.941^{+0.457}_{-0.374}$	$0.128^{+0.391}_{-0.048}$
	+3%/-5%	+10%/-2%	+118%/-92%	+23%/-42%	+24%/-19%	+305%/-37%
Source	KIC0	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 005648425-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0 ± 0	$0.36^{+0.27}_{-0.24}$	3441^{+266}_{-361}	4499^{+3940}_{-8318}	$2.365^{+27.170}_{-2.898}$
Alt.	-0 ± 0	$5.59^{+0.98}_{-1.19}$	3446^{+264}_{-347}	-3213^{+217}_{-150}	$0.028^{+0.021}_{-0.014}$

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 $A_{obs} \gg 1.0$

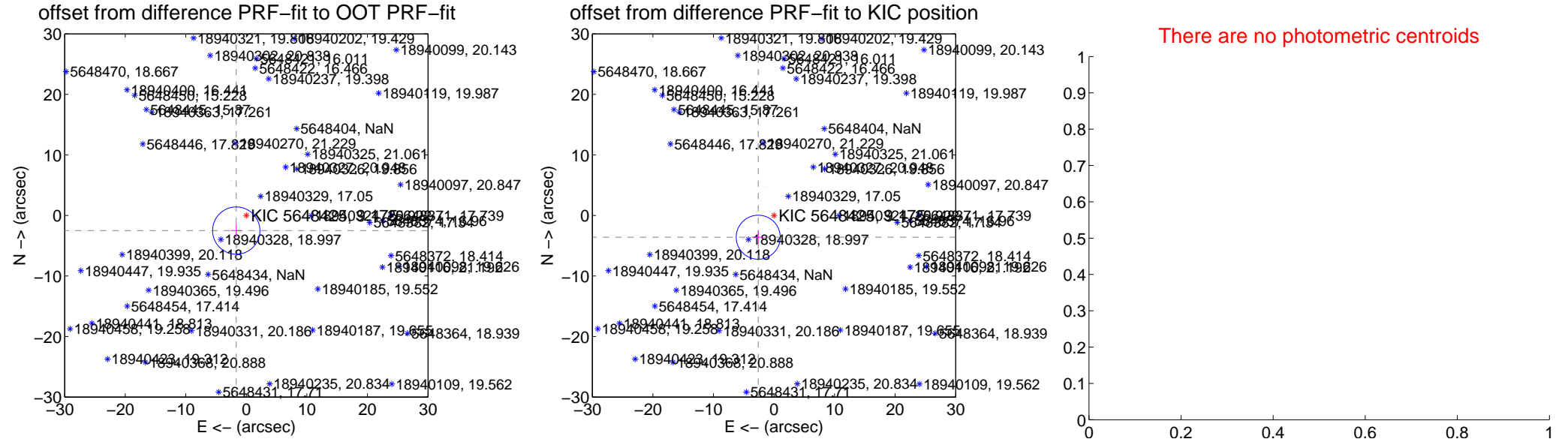
DV Centroid Data

Supplemental centroid analysis for 005648425-01. **Kepler magnitude: 9.18.** Transit SNR 1.23

There are 0 quarters with good PRF difference image offsets

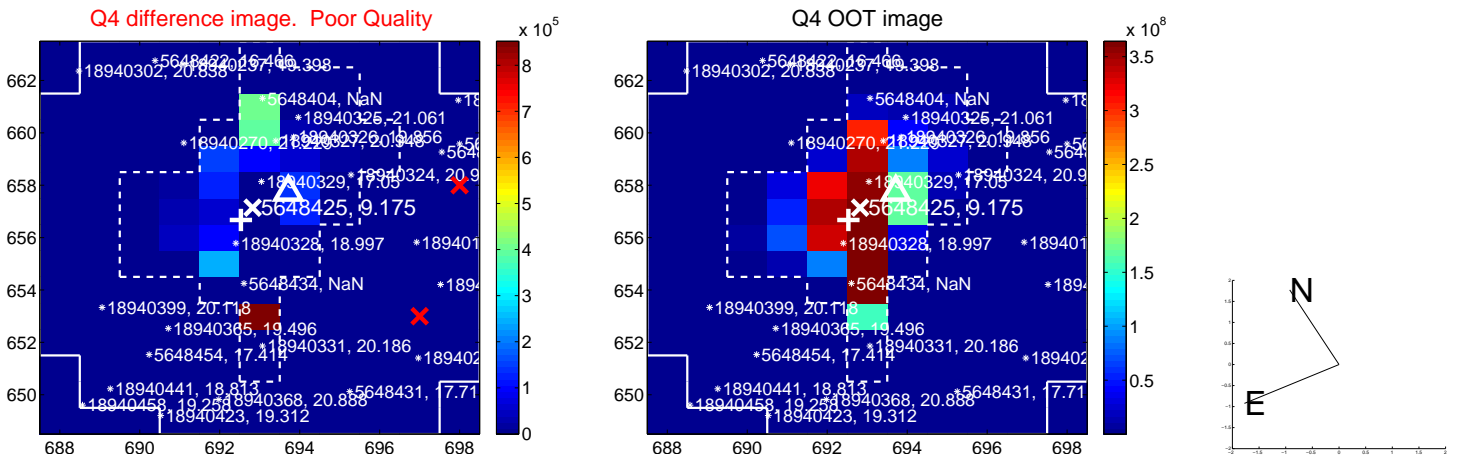
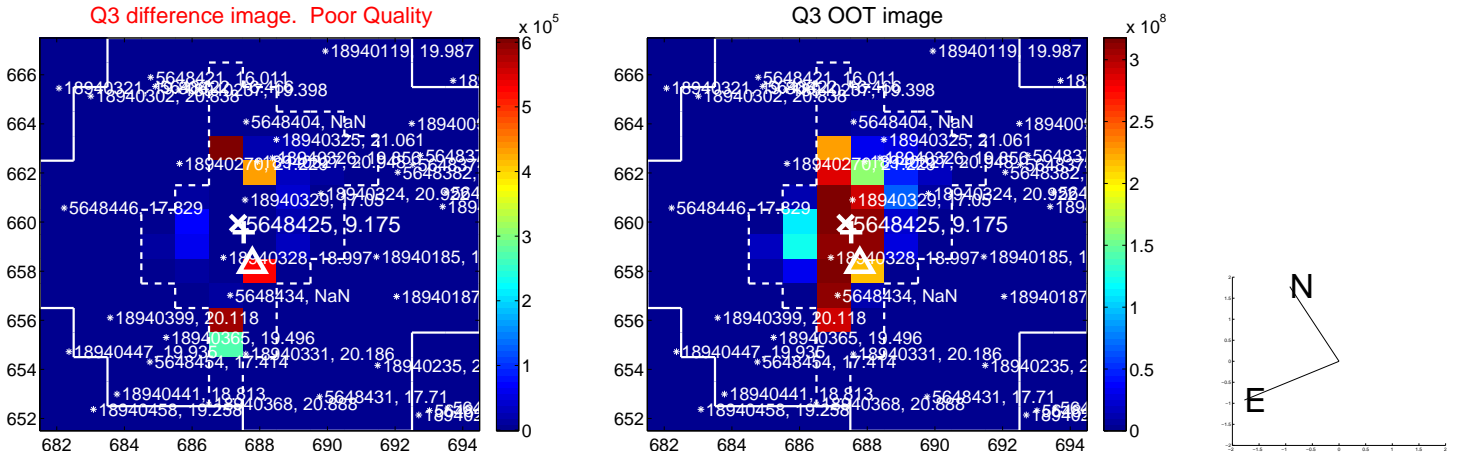
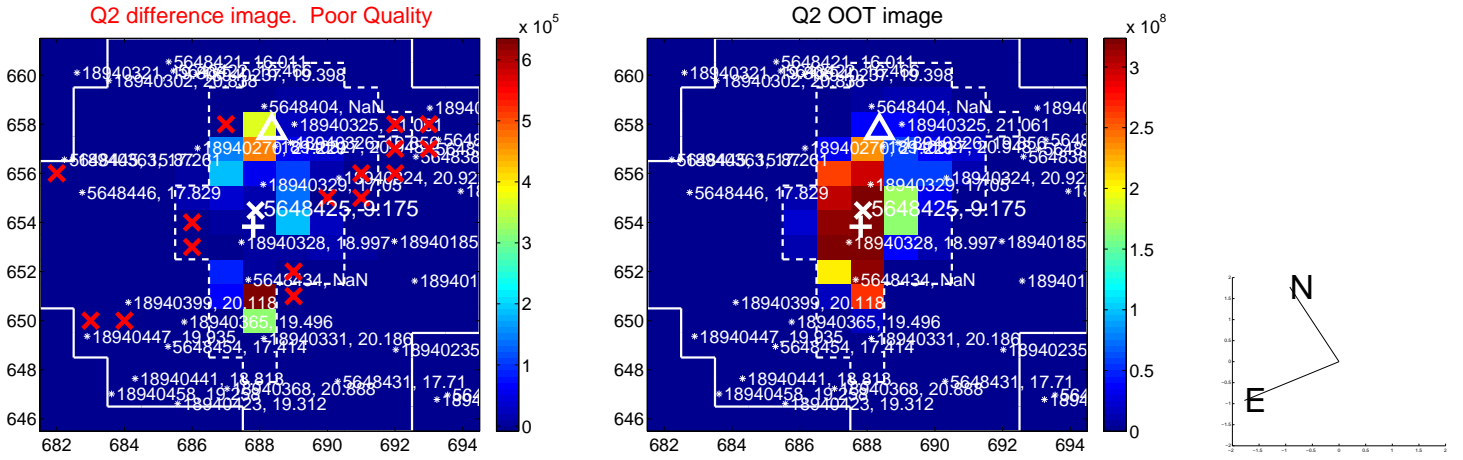
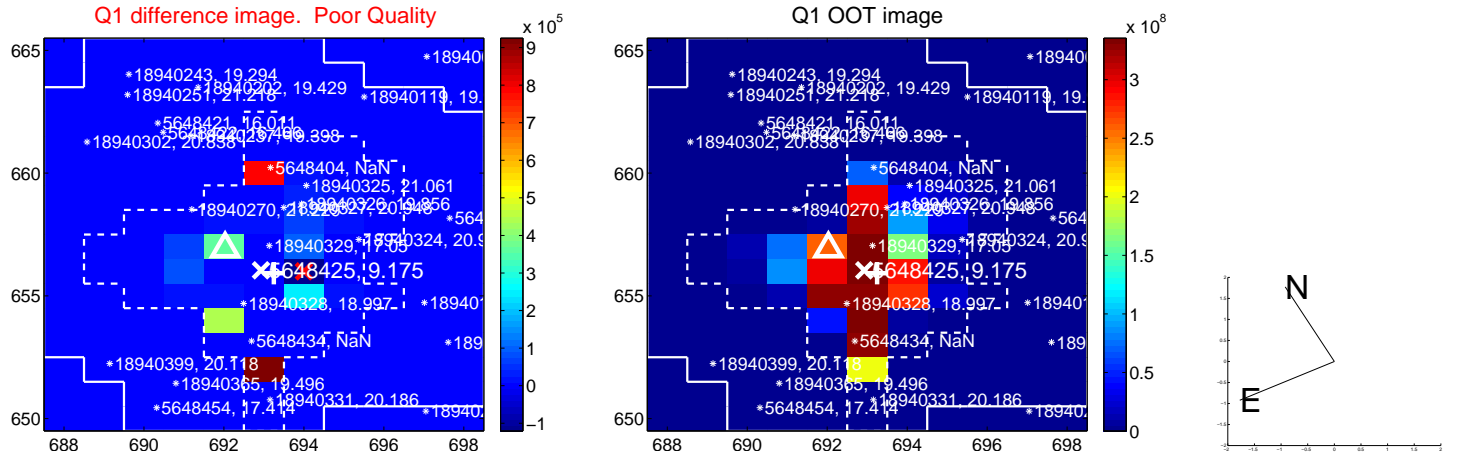
The direct PRF centroid is offset from the target star catalog position by about 1.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.006 ± 1.302	2.31	1.669 ± 0.914	-2.500 ± 1.110
PRF-fit source offset from KIC position	4.442 ± 1.212	3.67	2.606 ± 0.856	-3.597 ± 1.041
photometric centroid source offset	—	—	—	—

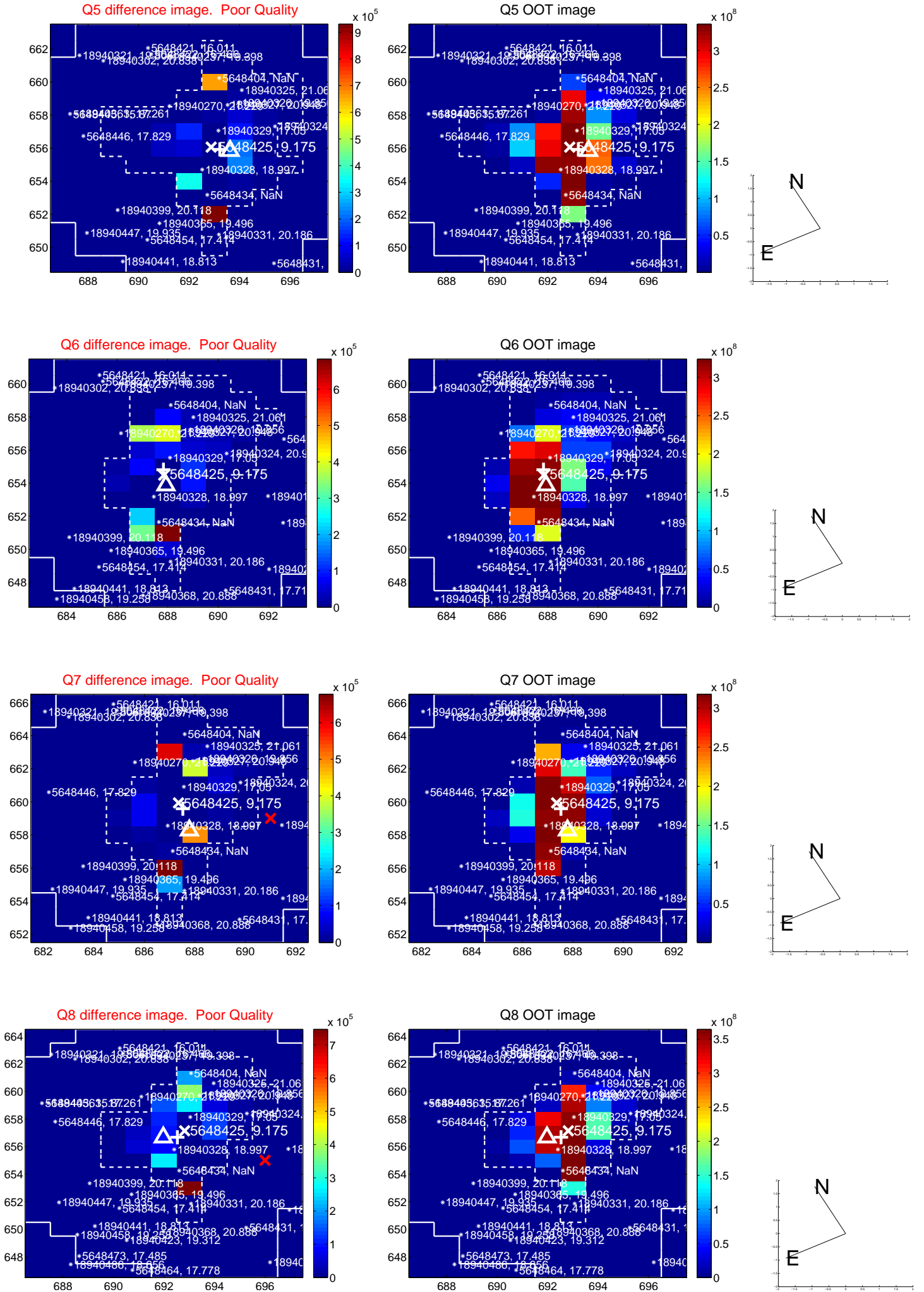


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

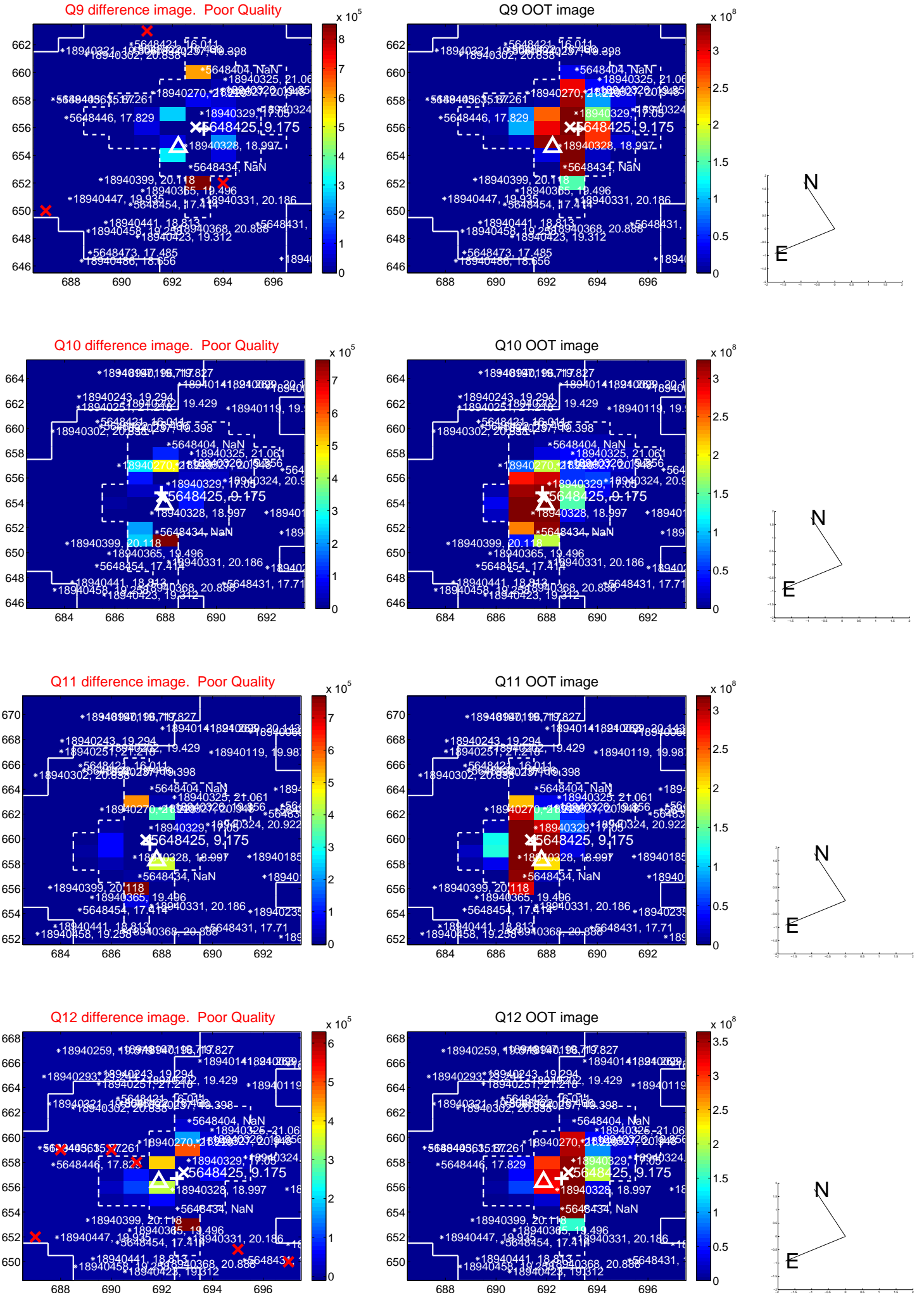
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



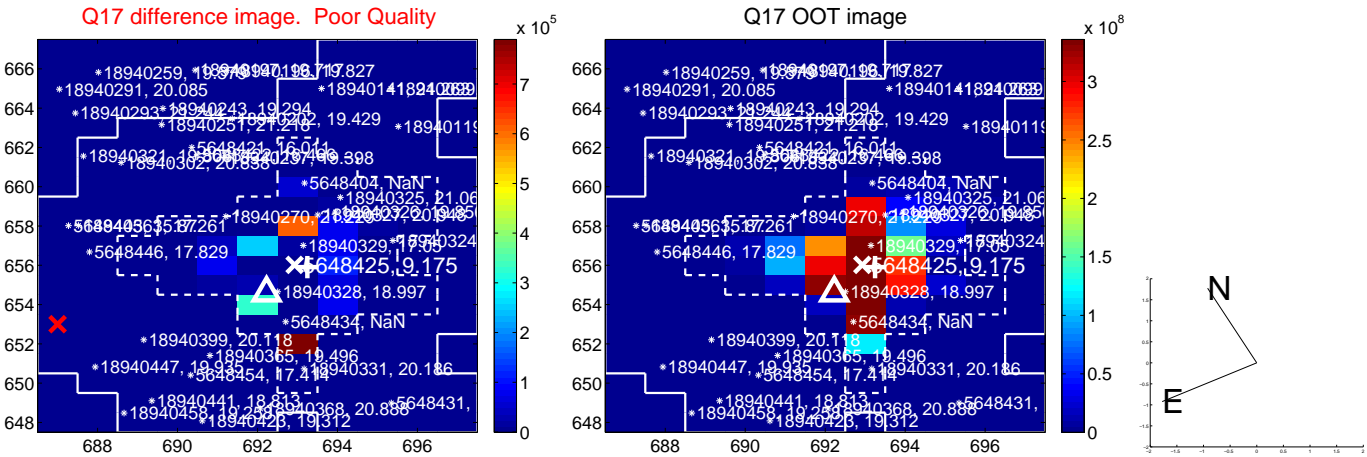
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

