

KIC 011601425

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})
011601425-01	OBS	5917.01	41.993391	143.893129	330.4	3.438	9.4	9.7	0.92	5766	2.04	15.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601425-01	OBS	PC	0.80	0	0	0	0	NO_COMMENT

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

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

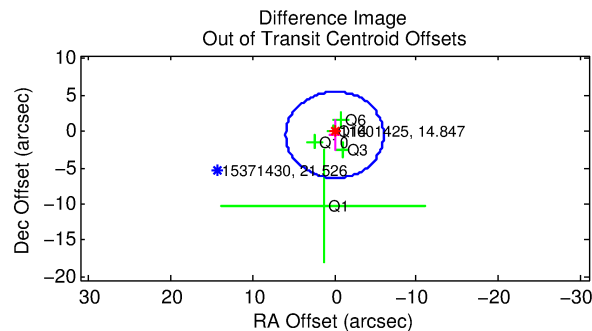
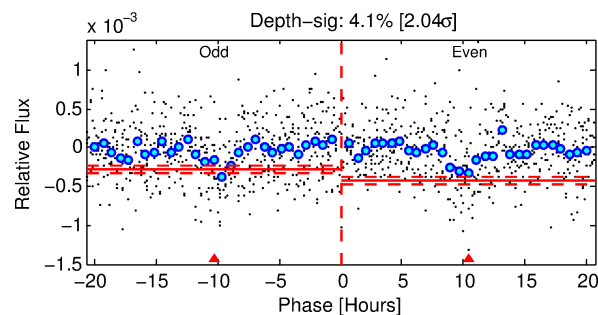
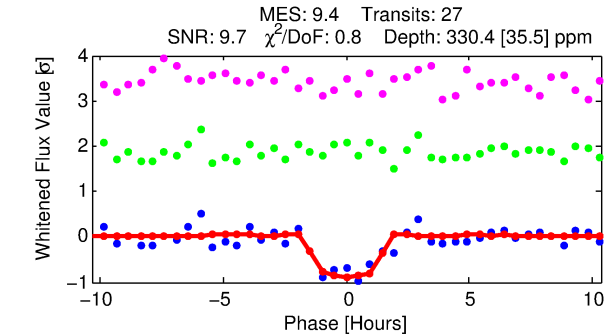
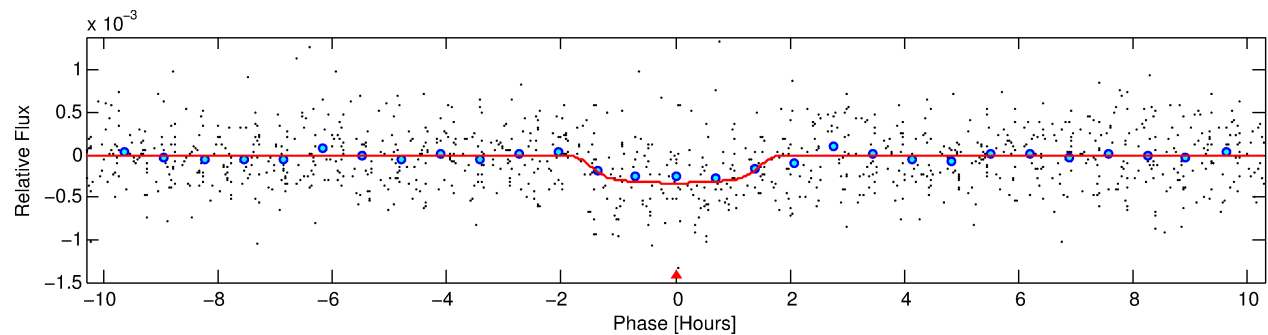
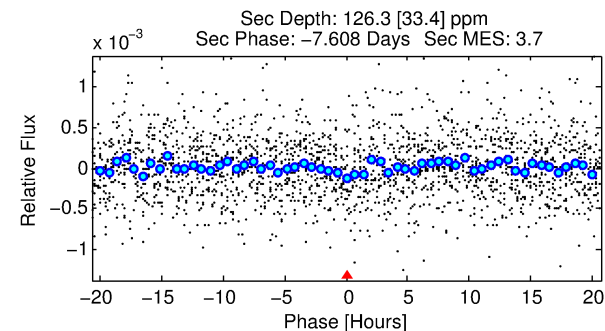
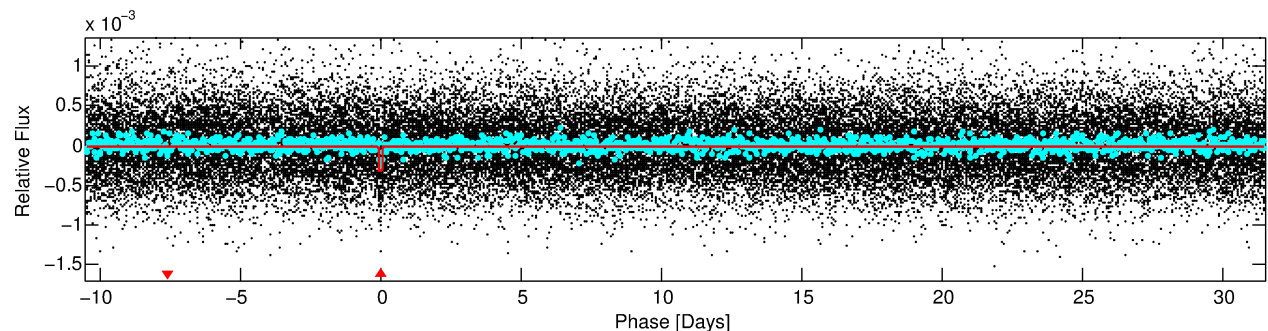
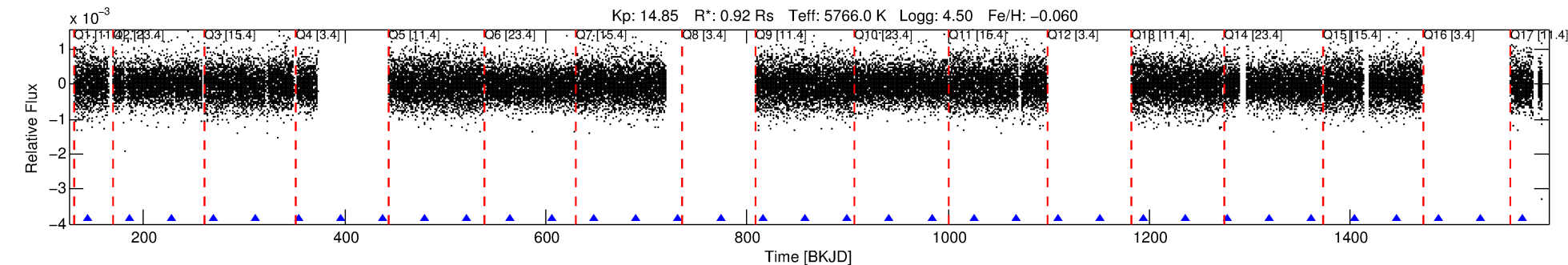
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011601425-01

No Significant Match Found

DV One-Page Summary

KIC: 11601425 Candidate: 1 of 1 Period: 41.993 d
KOI: K05917.01 Corr: 0.980



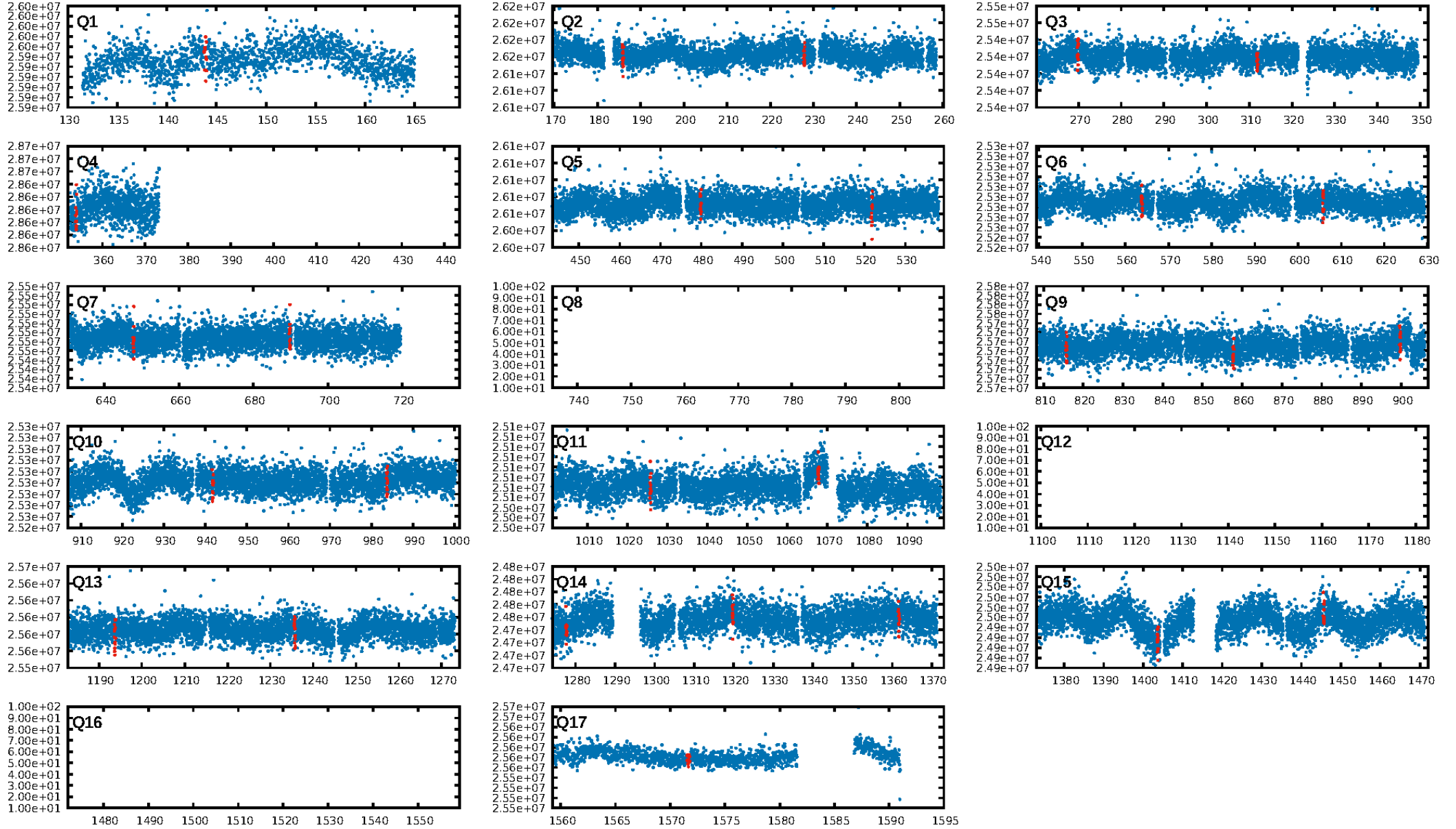
DV Fit Results:

Period = 41.99339 [0.00038] d
Epoch = 143.8931 [0.0071] BKJD
Rp/R* = 0.0205 [0.0057]
a/R* = 39.49 [52.65]
b = 0.93 [0.20]
Seff = 15.22 [5.86]
Teq = 504 [48] K
Rp = 2.04 [0.84] Re
a = 0.2334 [0.0586] AU
Ag = 907.38 [653.75] [1.39 σ]
Teffp = 4274 [675] K [5.57 σ]

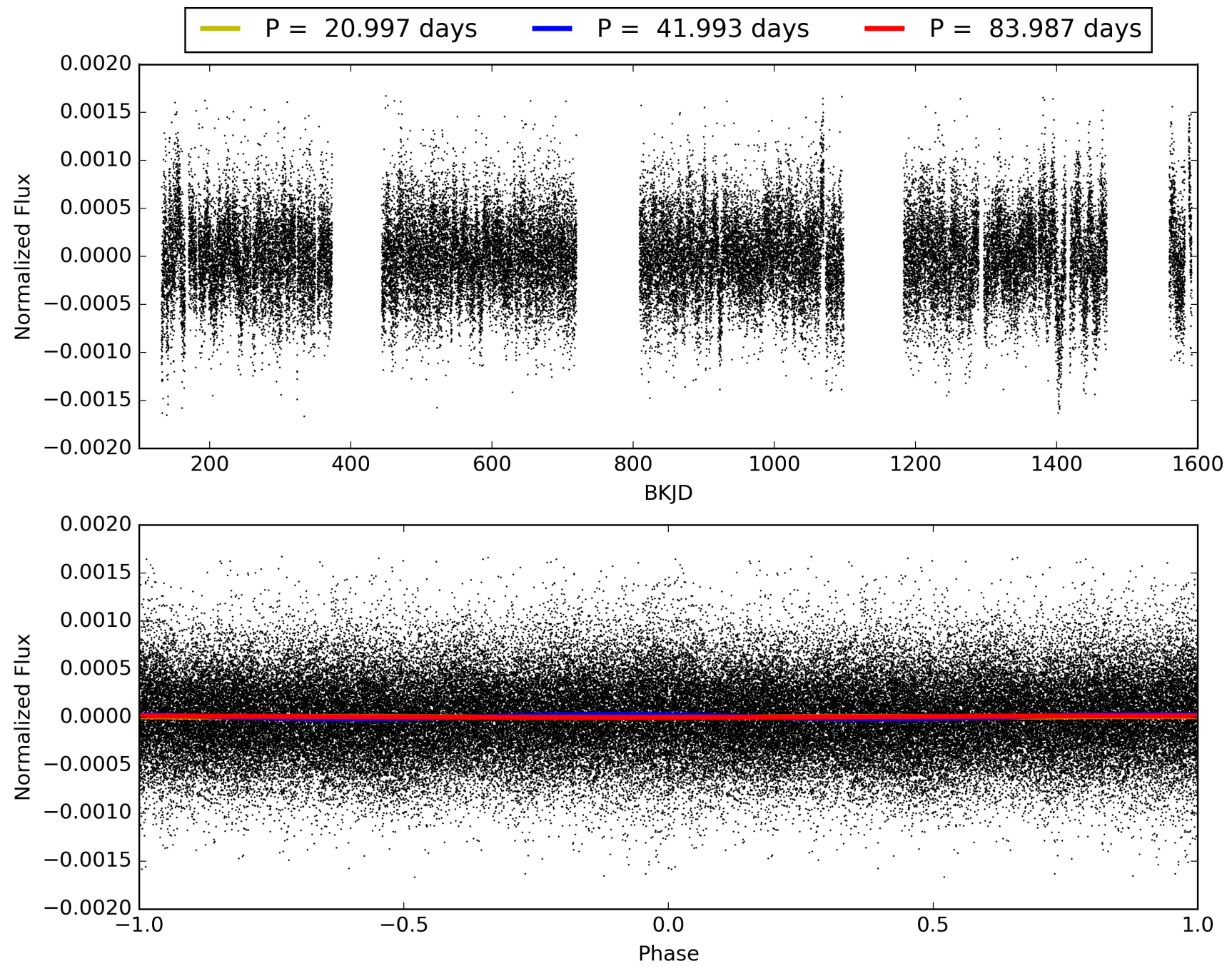
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 82.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.28e-20
RollingBand-fgt: 1.00 [24/24]
GhostDiagnostic-chr: 1.624
Centroid-sig: 3.3%
Centroid-so: 2.032 arcsec [1.37 σ]
OotOffset-rm: 0.479 arcsec [0.24 σ]
KicOffset-rm: 0.601 arcsec [0.37 σ]
OotOffset-st: 3/1/0/1 [5]
KicOffset-st: 3/1/0/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011601425-01, PDC Light Curves

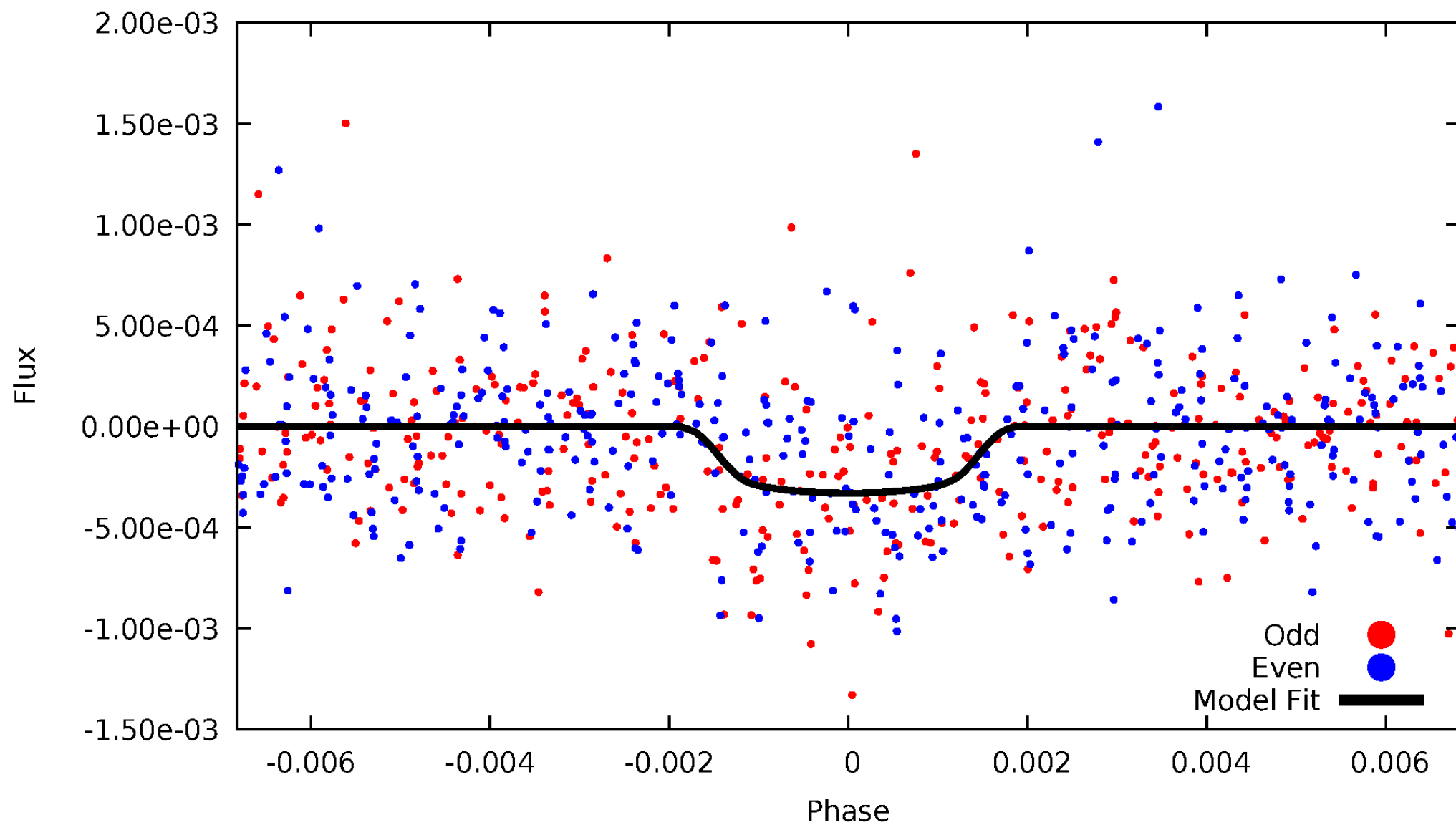


TCE 011601425-01



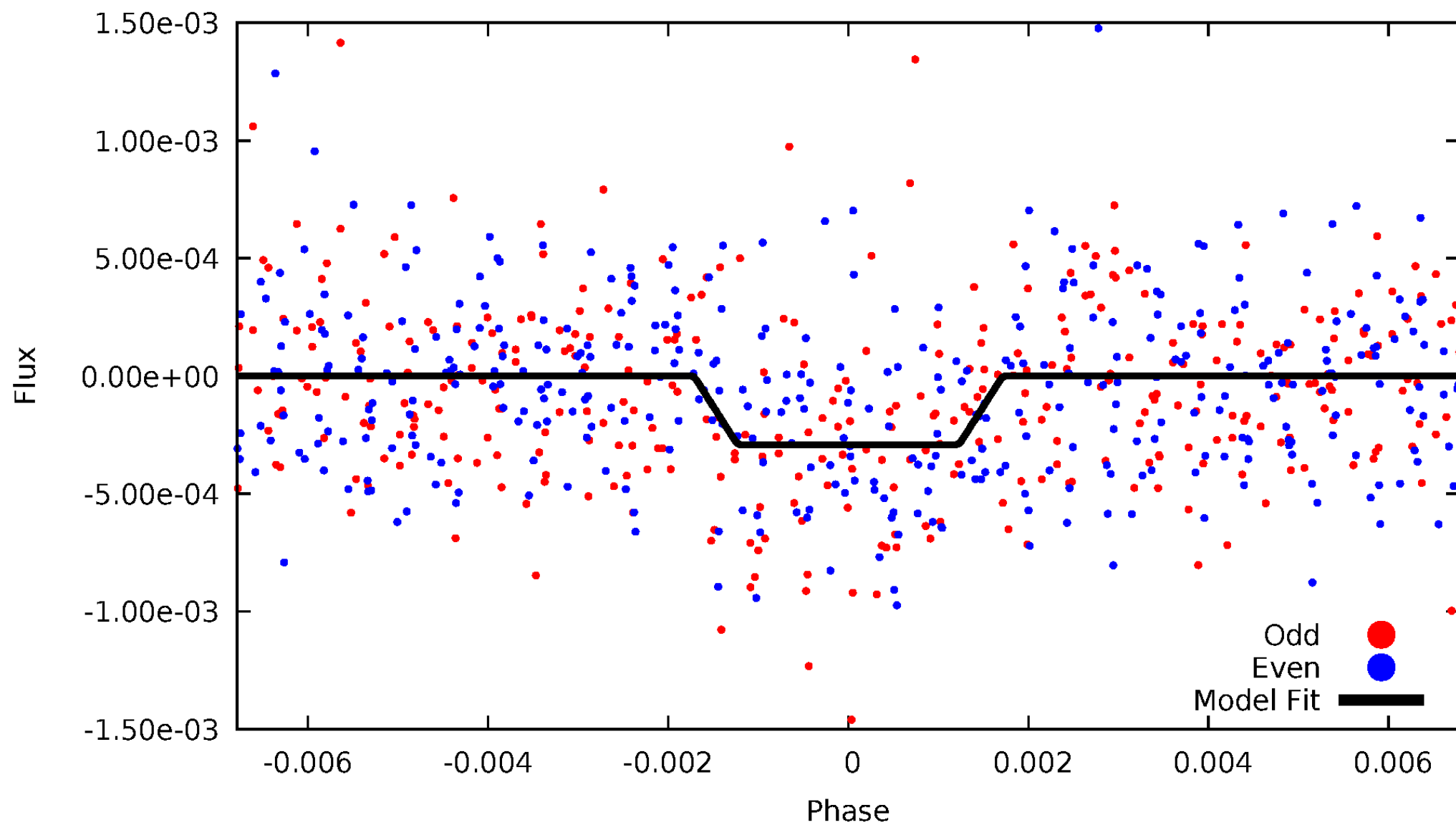
DV Odd/Even

TCE 011601425-01



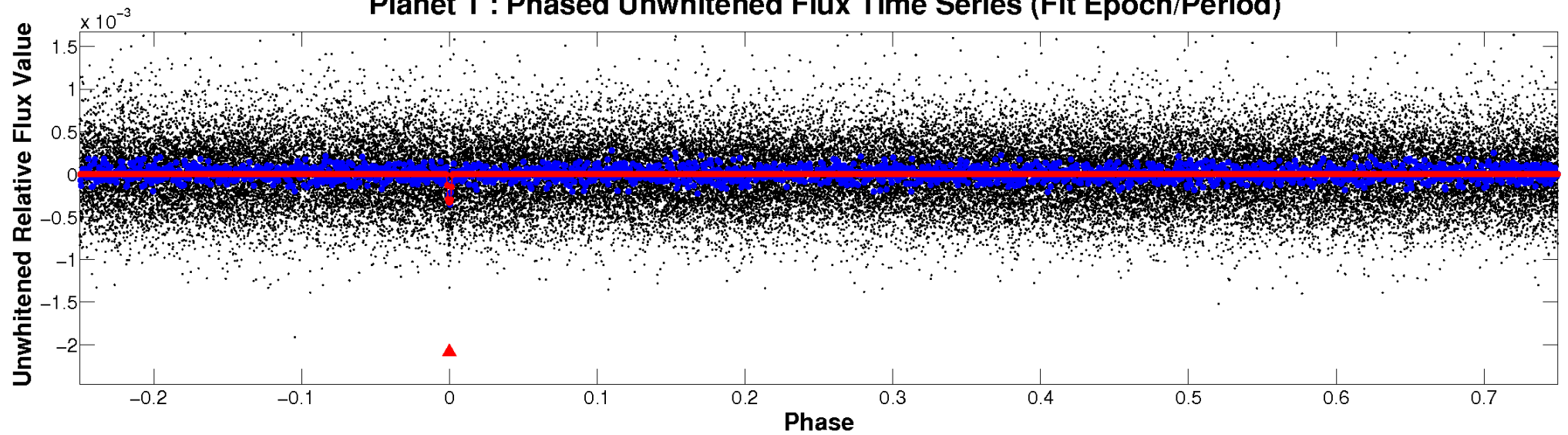
ALT Odd/Even

TCE 011601425-01

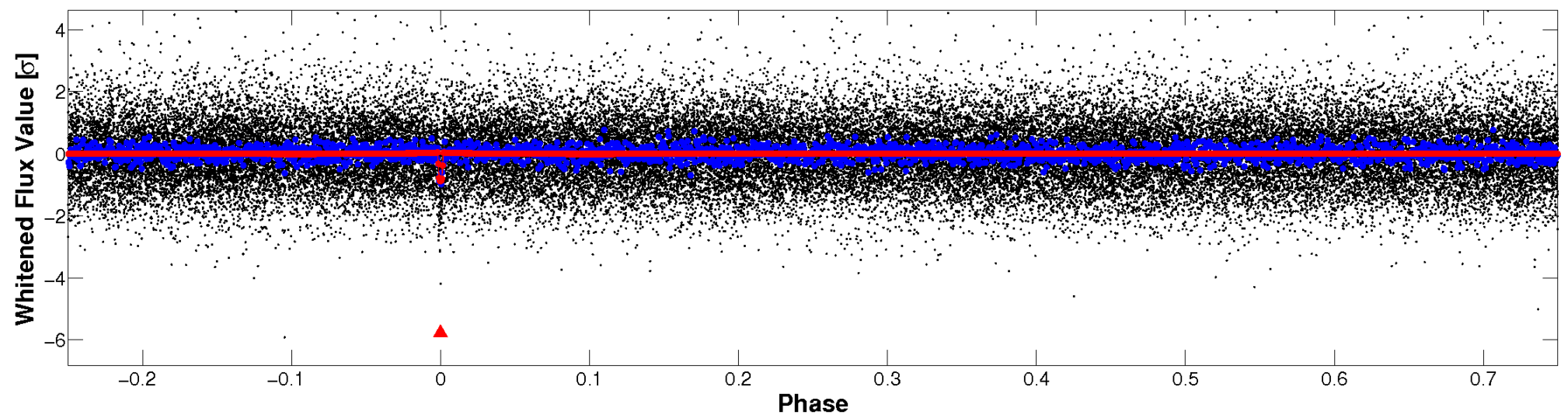


Non-Whitened Vs. Whitened Light Curve

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

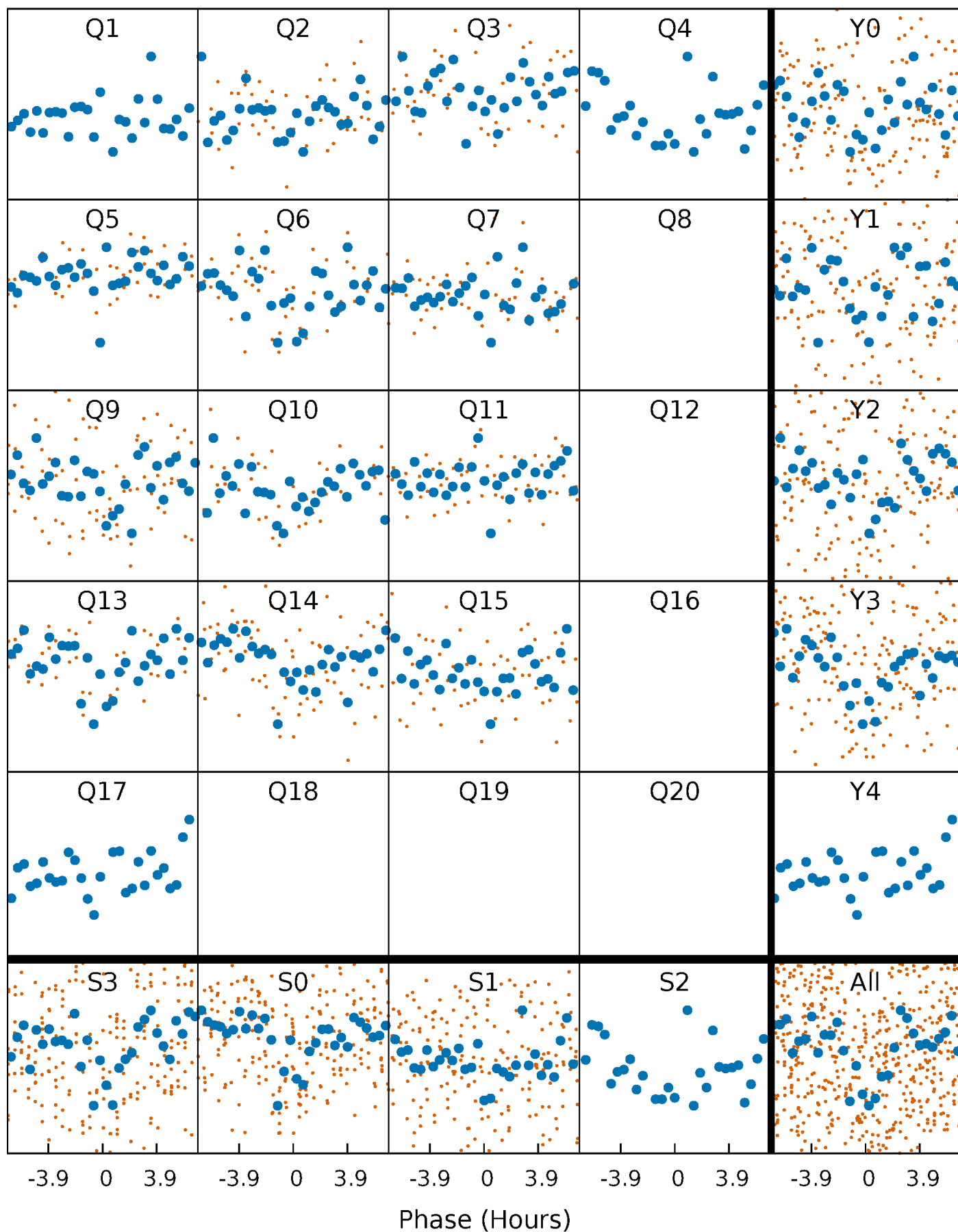


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



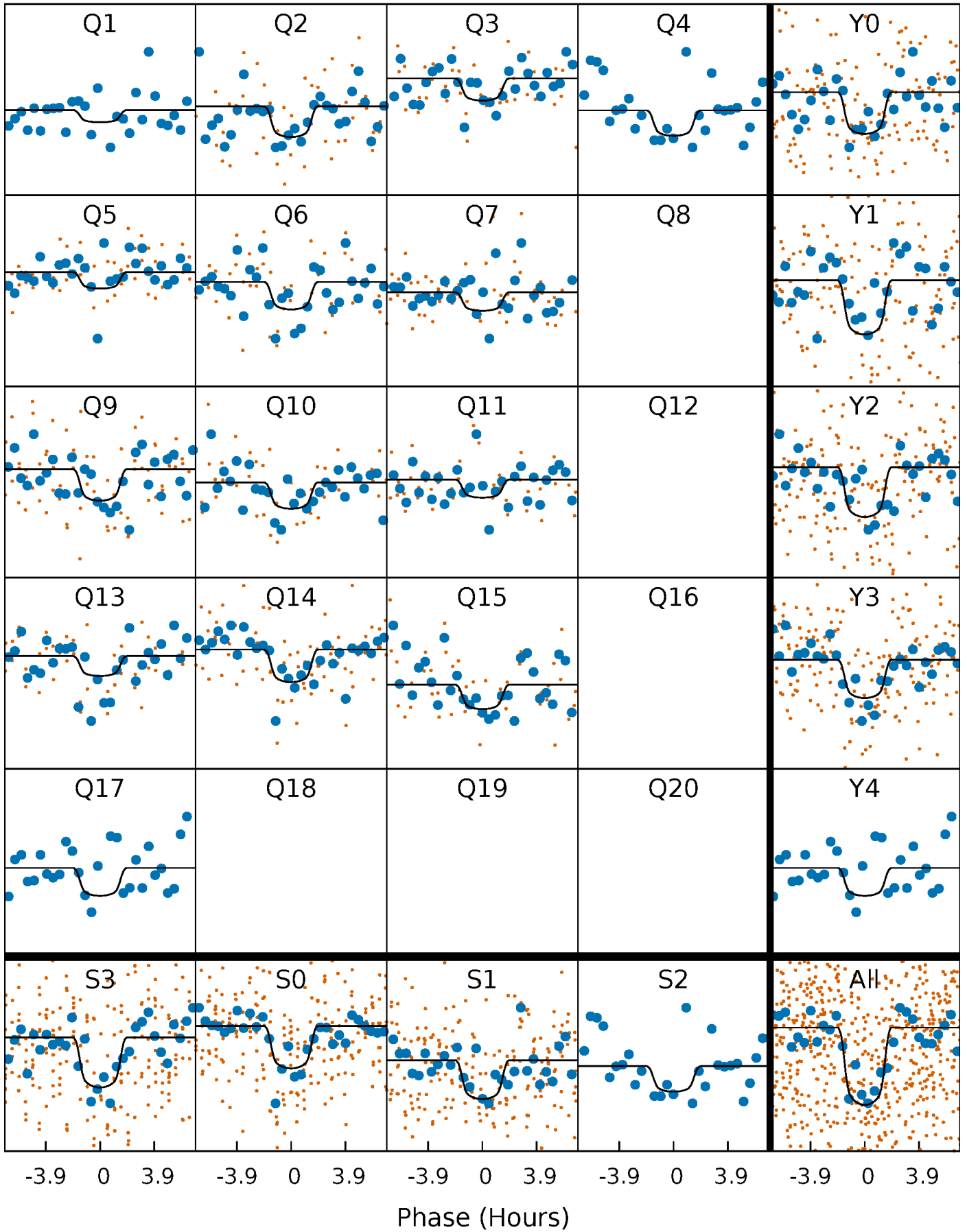
PDC Quarter-Phased Transit Curves

TCE 011601425-01 P= 41.993391 Days $T_0=143.893129$ (BKJD)



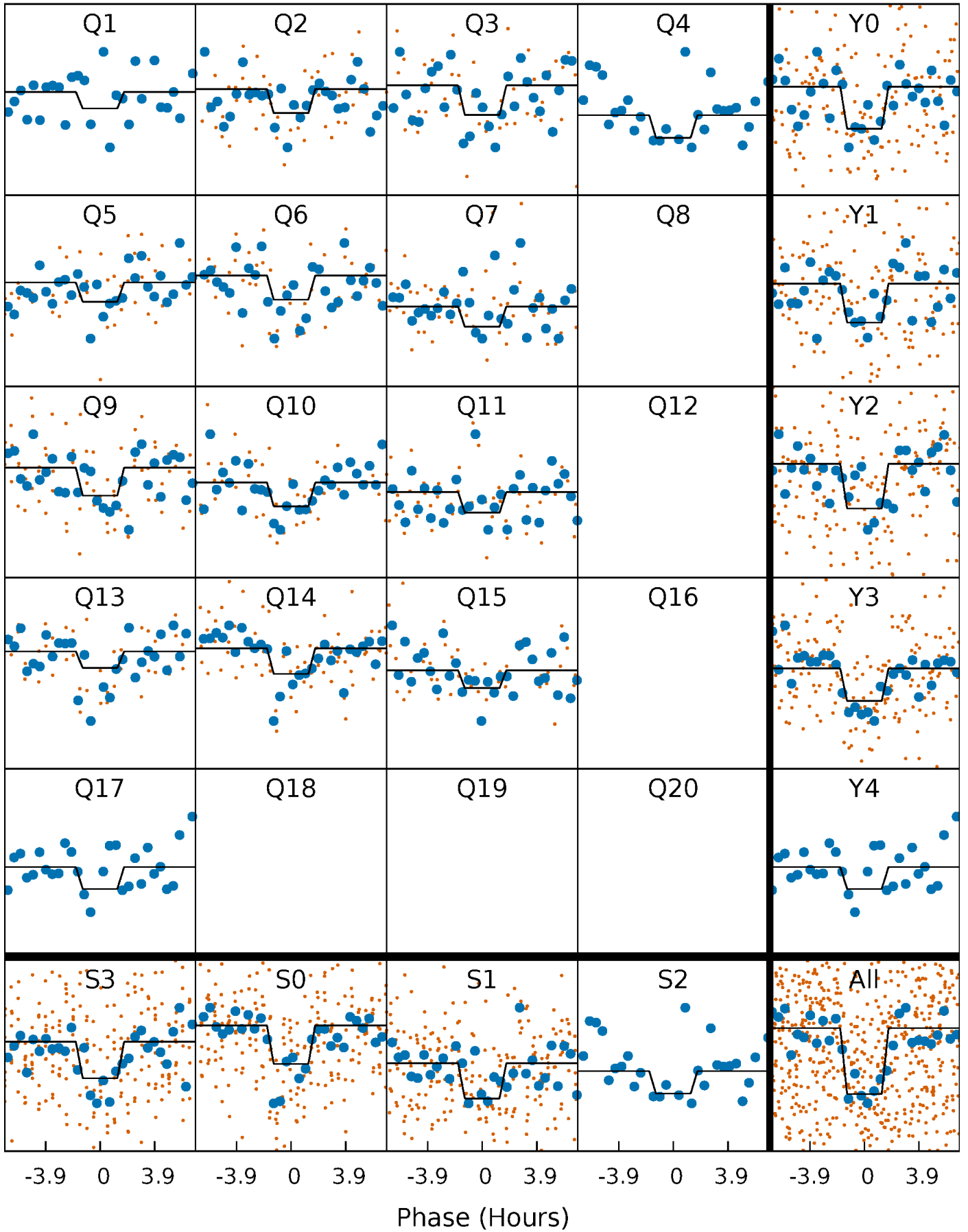
DV Quarter-Phased Transit Curves

TCE 011601425-01 P= 41.993391 Days $T_0=143.893129$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

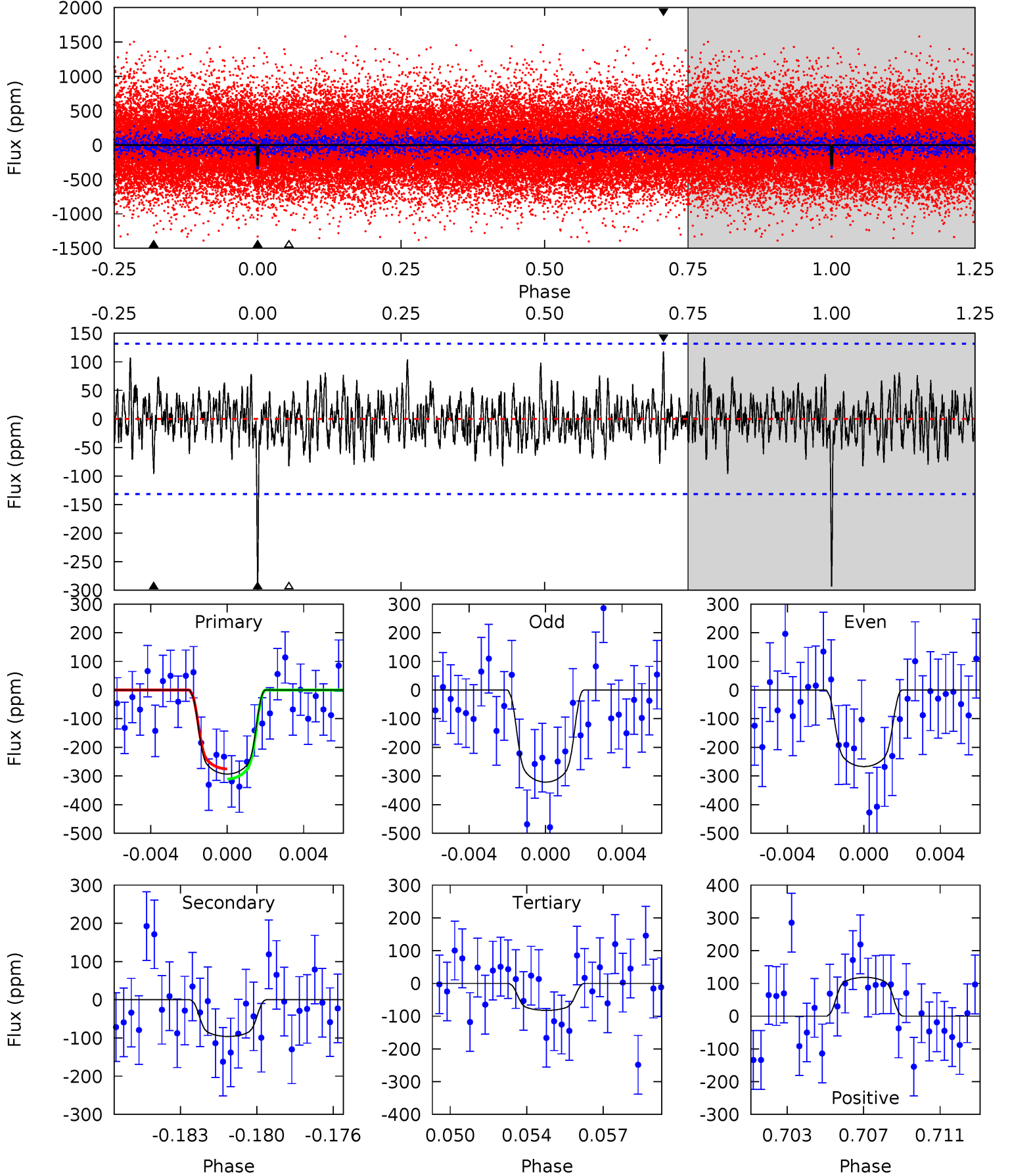
TCE 011601425-01 P= 41.993427 Days $T_0=143.893180$ (BKJD)



DV Model-Shift Uniqueness Test

011601425-01, P = 41.993391 Days, E = 101.899738 Days

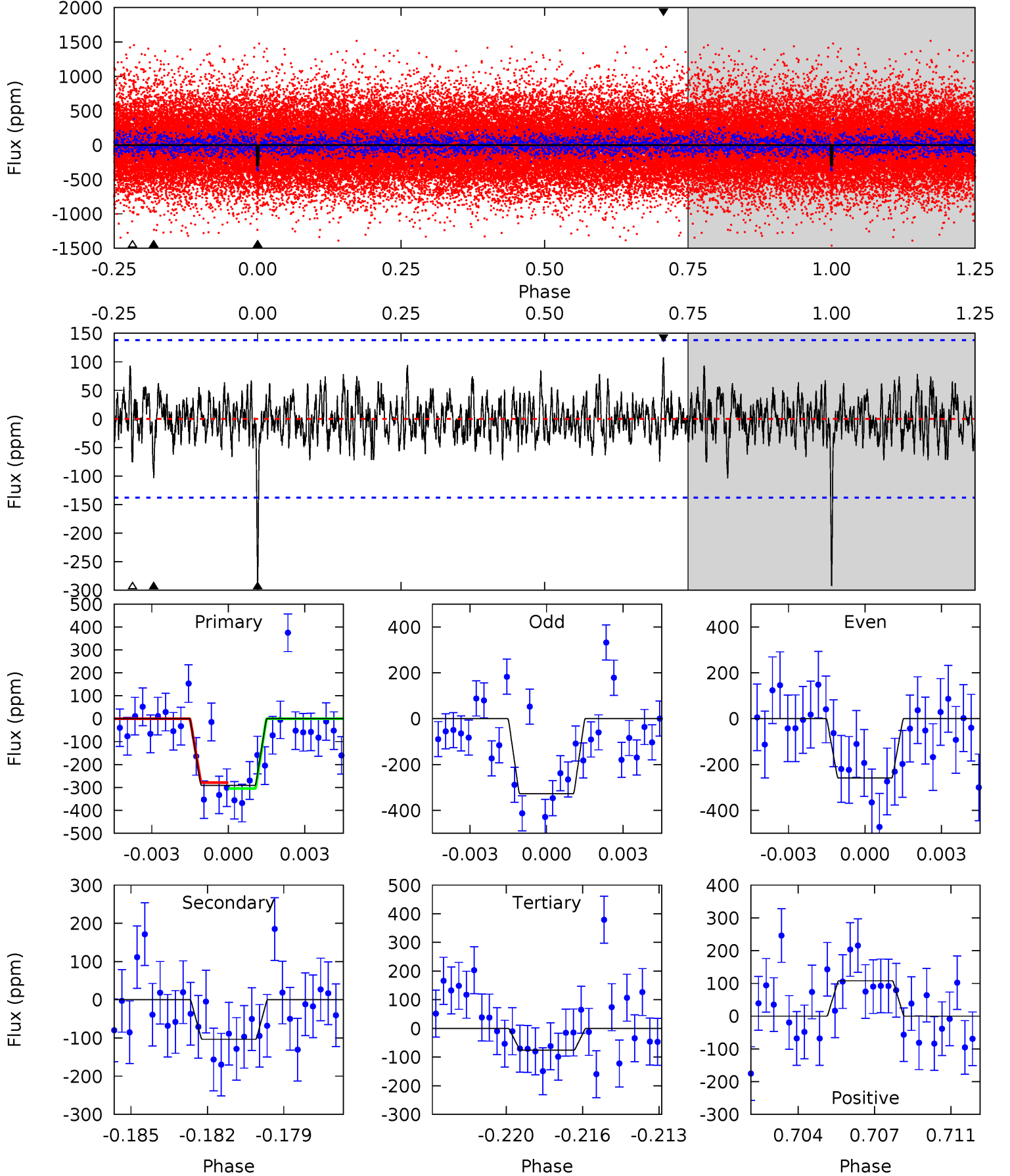
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	3.80	3.26	4.68	5.21	2.89	1.20	8.34	6.92	0.53	-0.89	1.07	0.86	0.29	0.70



Alt Model-Shift Uniqueness Test

011601425-01, P = 41.993427 Days, E = 101.899753 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	3.92	2.88	4.09	5.23	2.93	1.07	8.18	6.97	1.05	-0.17	1.30	0.91	0.27	0.50



Stellar Parameters For KIC 011601425

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5766^{+156}_{-173}	$4.498^{+0.050}_{-0.200}$	$-0.060^{+0.300}_{-0.300}$	$0.915^{+0.273}_{-0.091}$	$0.963^{+0.114}_{-0.114}$	$1.769^{+0.448}_{-0.863}$
	+3%/-3%	+1%/-4%	+500%/-500%	+30%/-10%	+12%/-12%	+25%/-49%
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 011601425-01 / KOI 5917.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-96 ± 25	$2.16^{+0.66}_{-0.69}$	720^{+47}_{-34}	4250^{+628}_{-458}	613^{+695}_{-288}
Alt.	-103 ± 26	$1.83^{+0.62}_{-0.61}$	719^{+48}_{-33}	4557^{+880}_{-510}	904^{+1179}_{-438}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

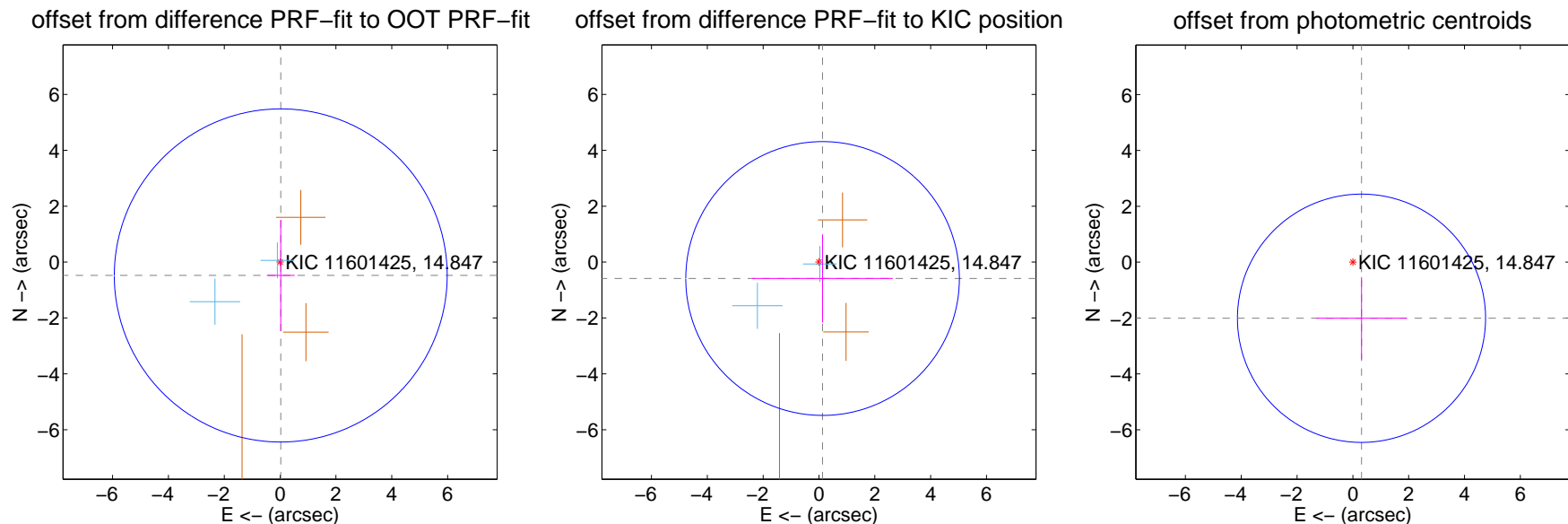
DV Centroid Data

Supplemental centroid analysis for 011601425-01. Kepler magnitude: 14.85. Transit SNR 9.73

There are 2 quarters with good PRF difference image offsets

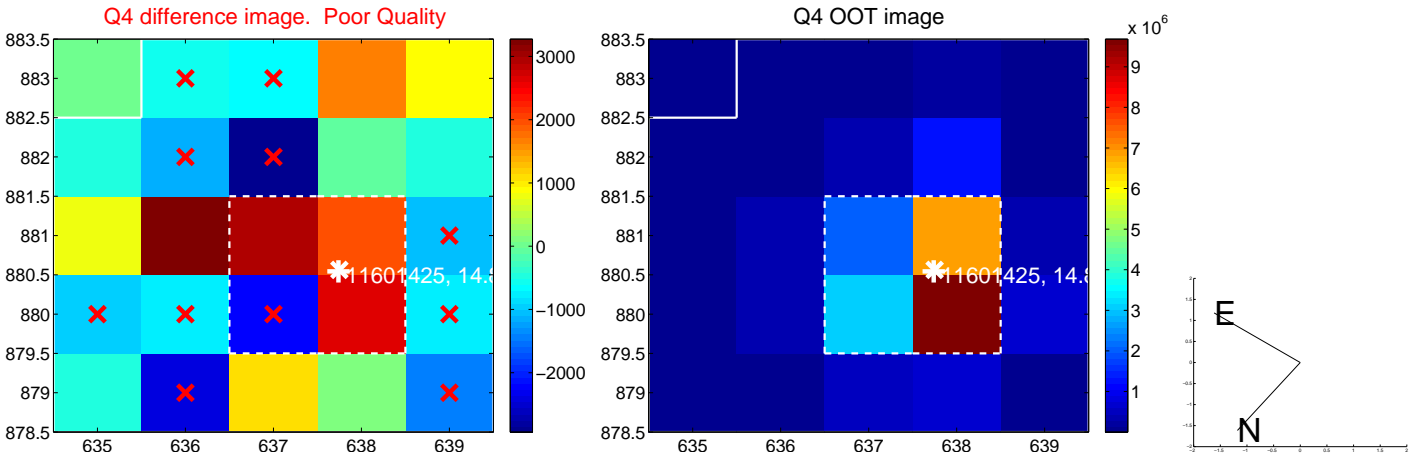
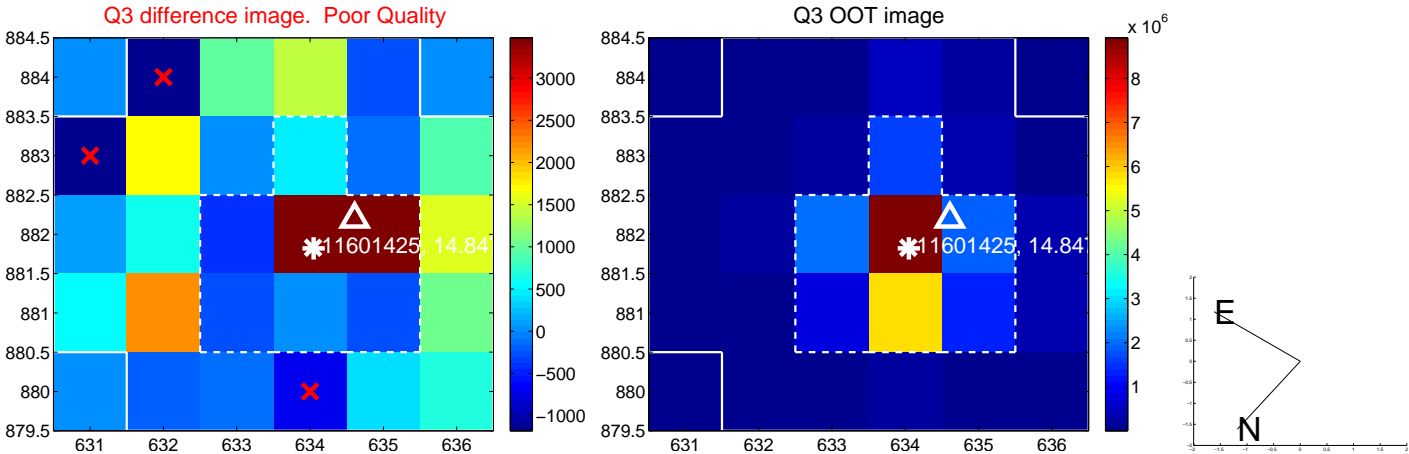
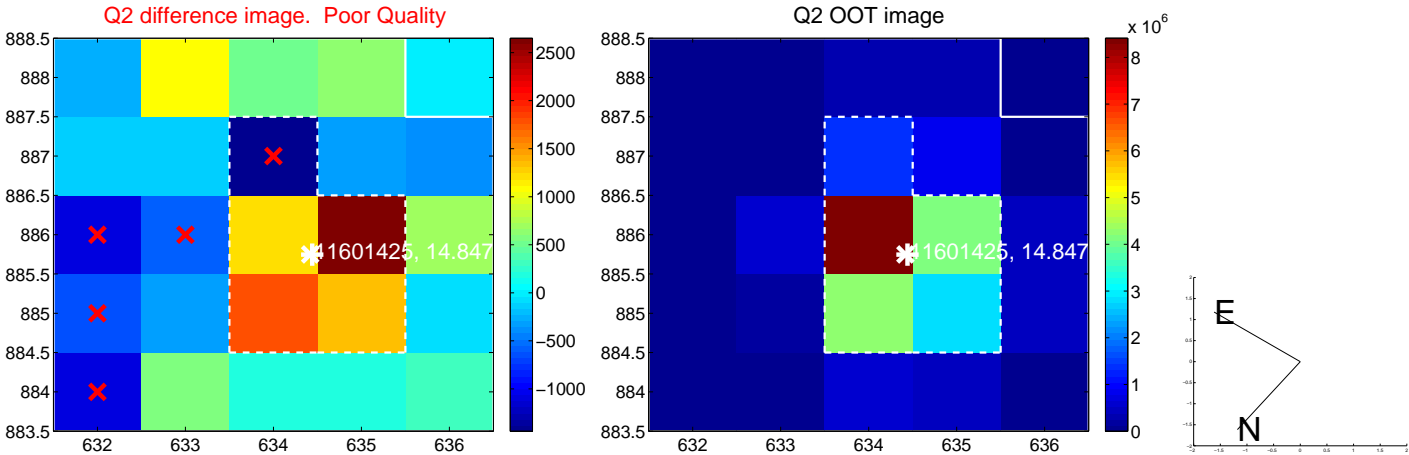
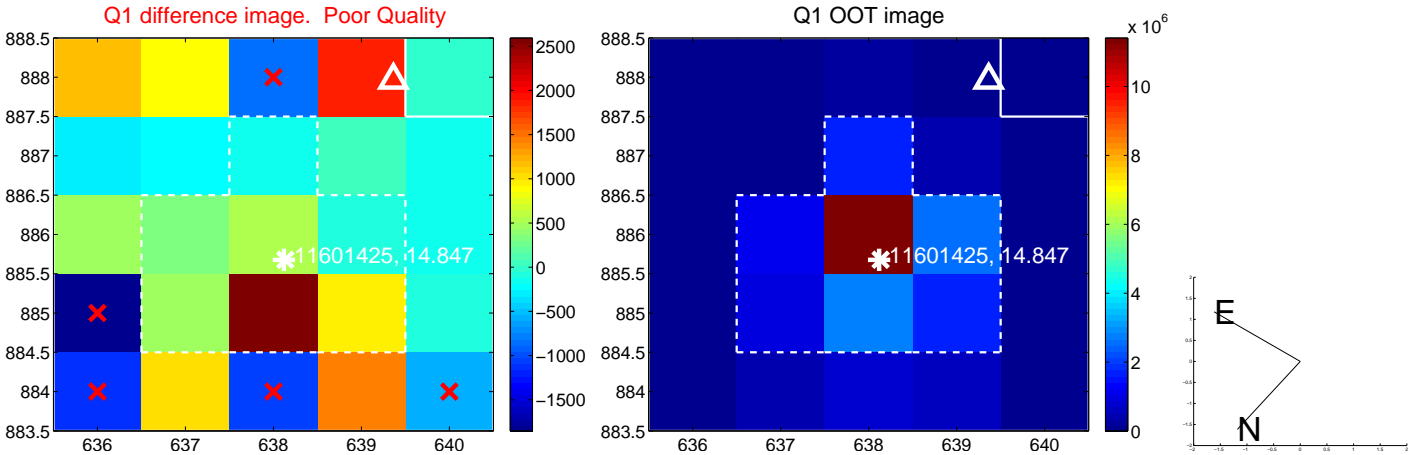
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.479 ± 1.987	0.24	-0.023 ± 0.500	-0.478 ± 1.989
PRF-fit source offset from KIC position	0.601 ± 1.633	0.37	-0.129 ± 2.519	-0.587 ± 1.578
photometric centroid source offset	2.03 ± 1.48	1.37	-0.31 ± 1.62	-2.01 ± 1.48

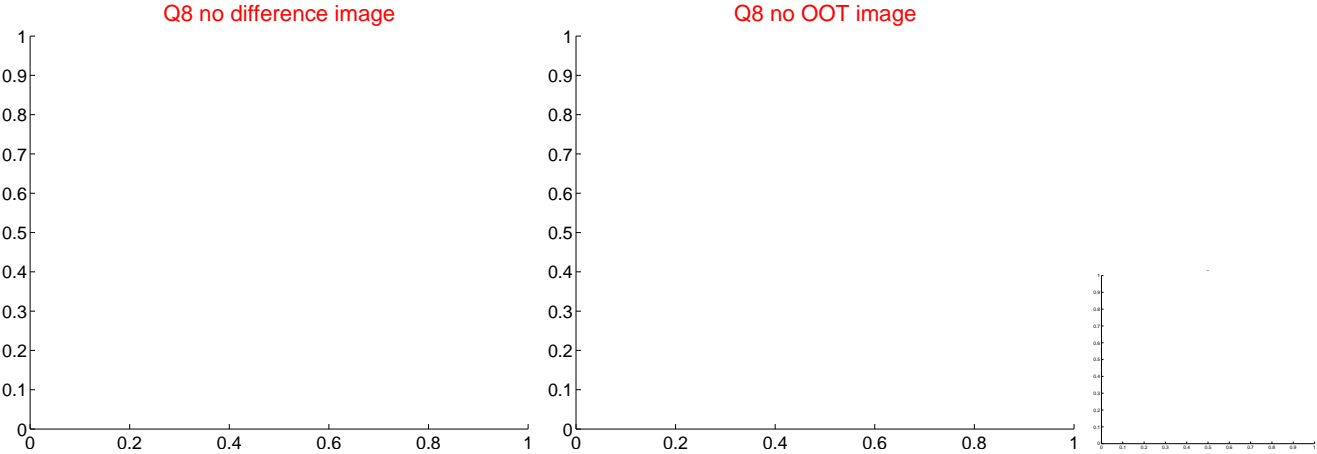
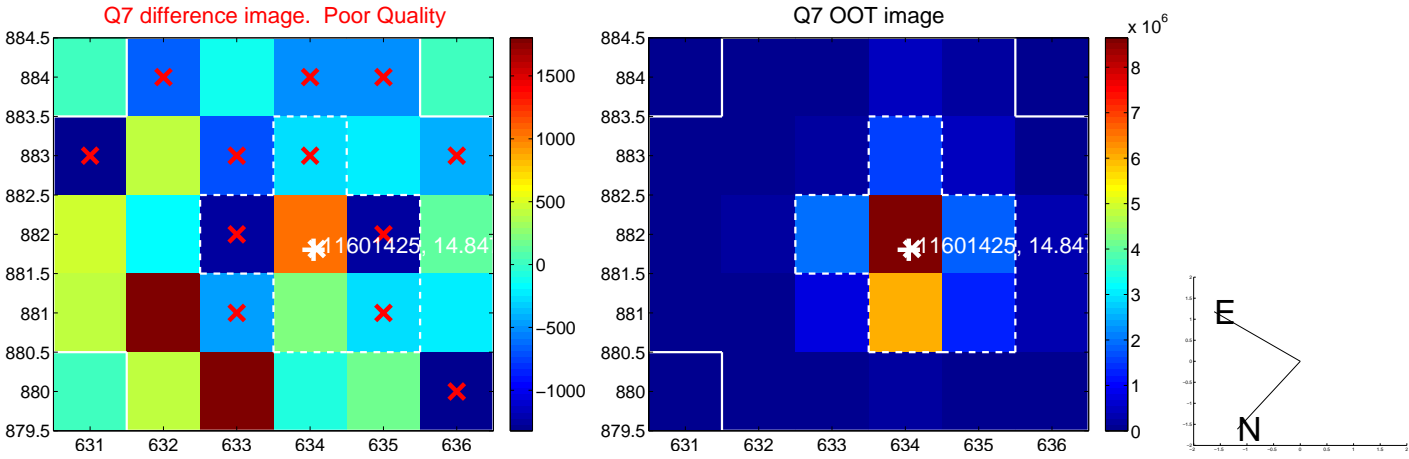
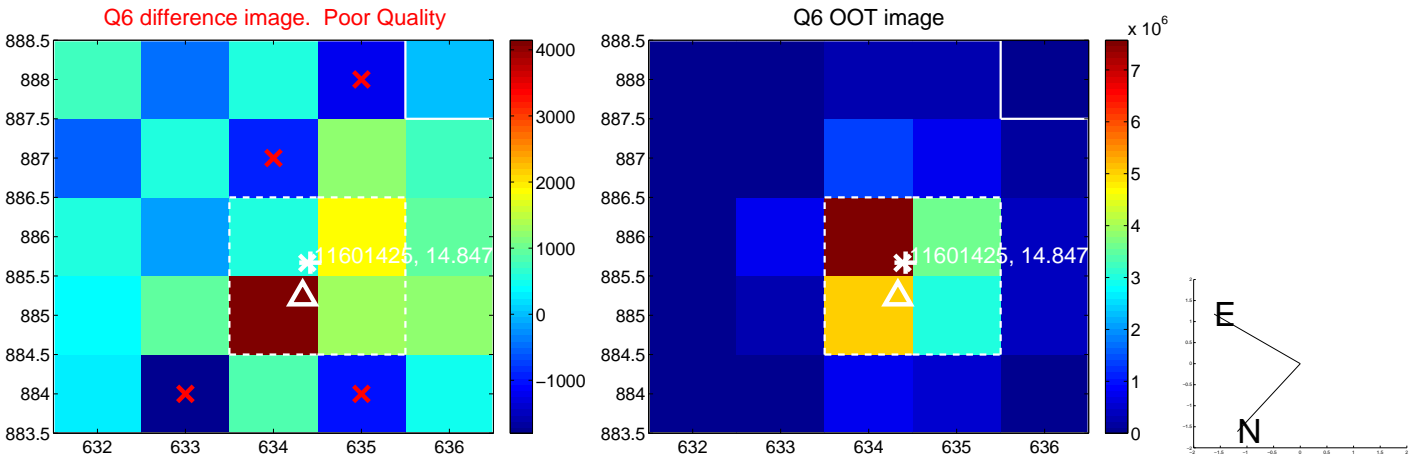
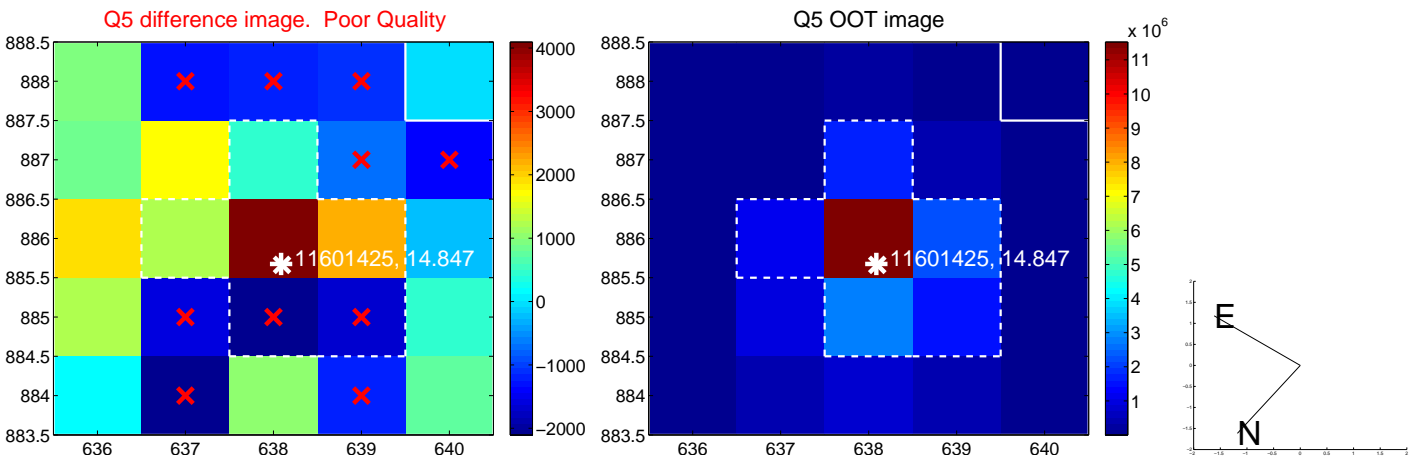


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

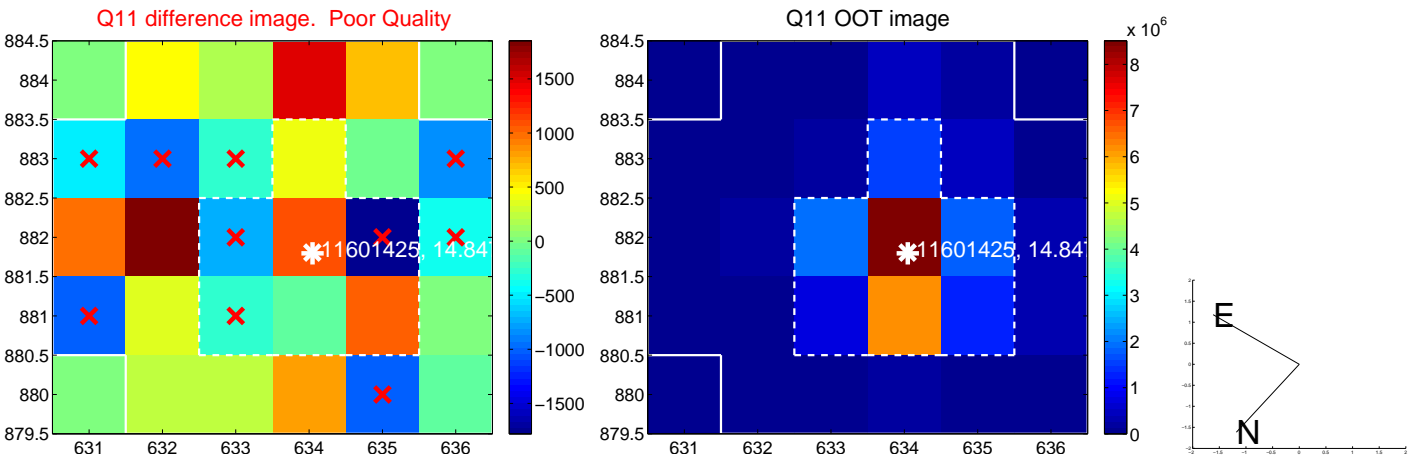
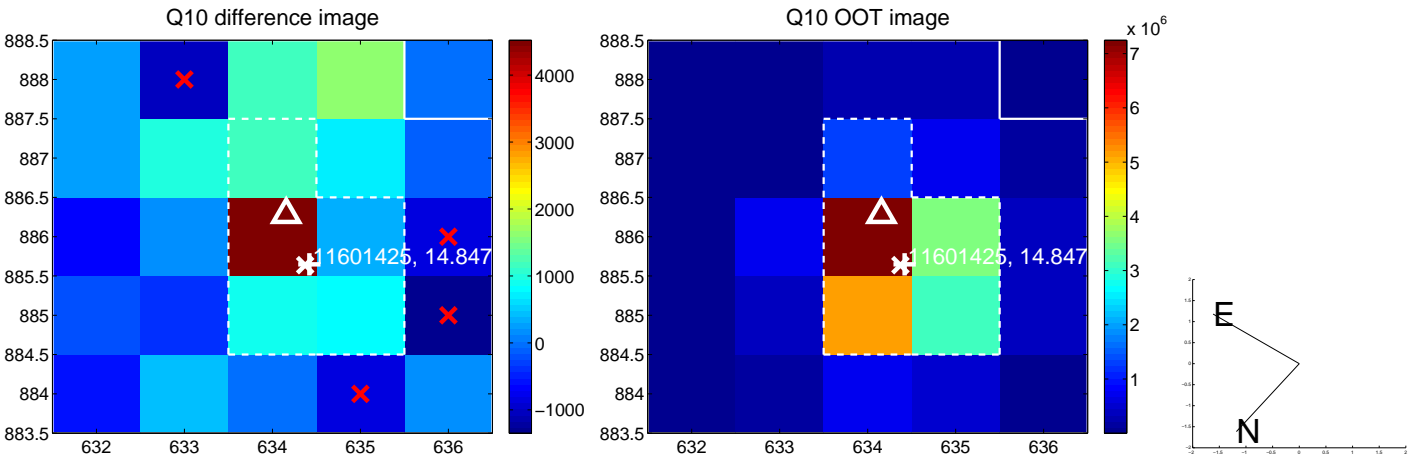
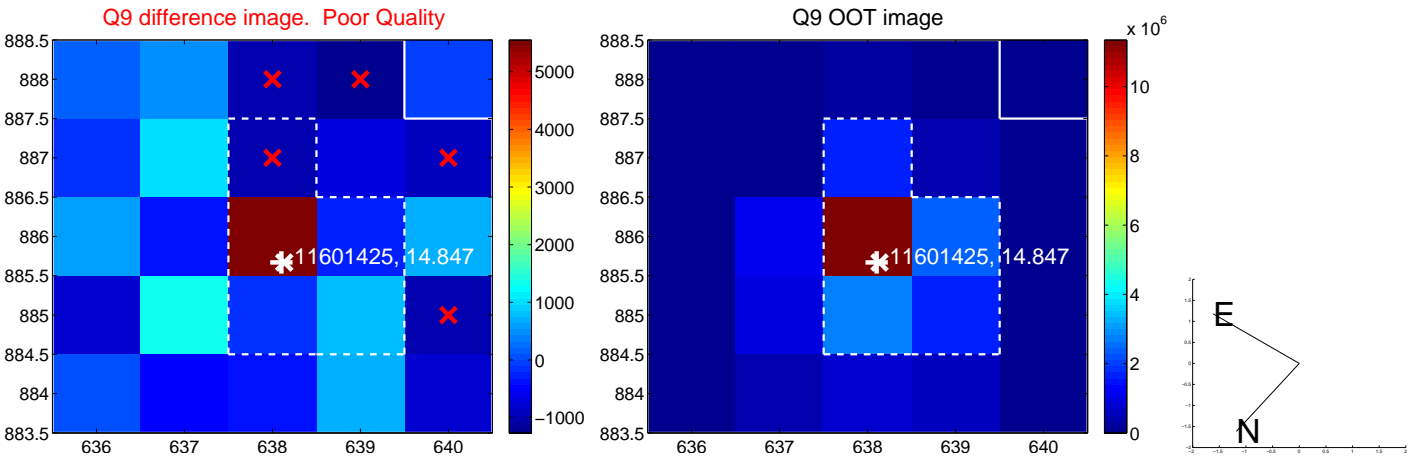
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



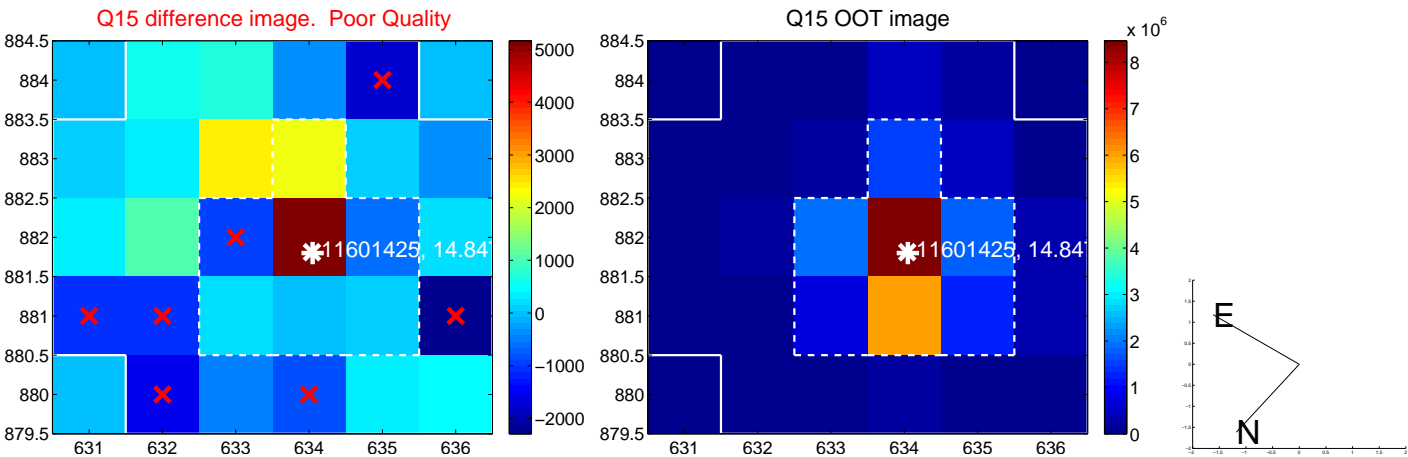
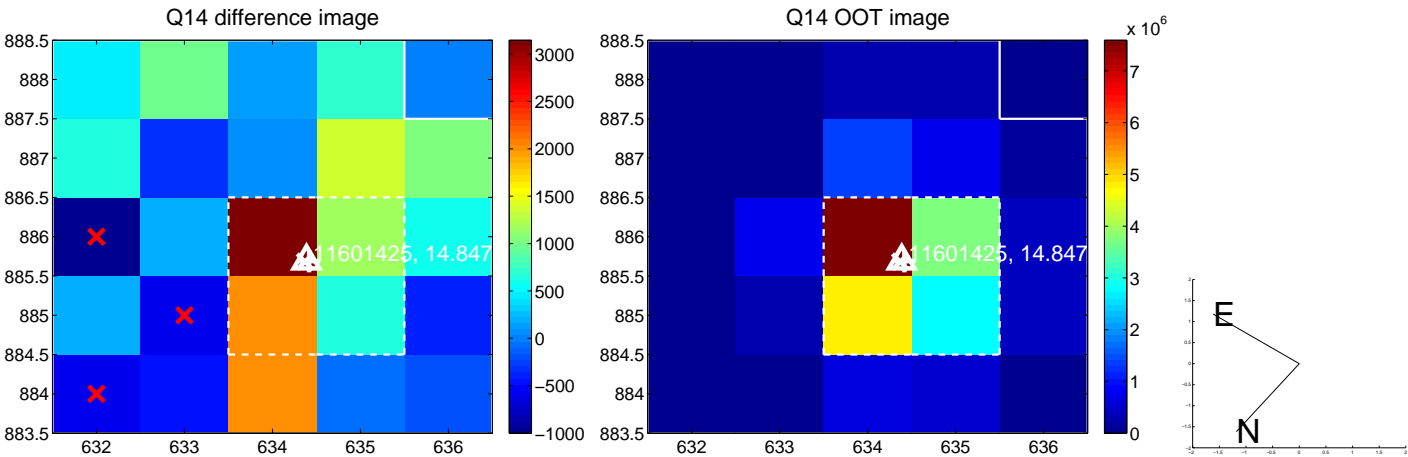
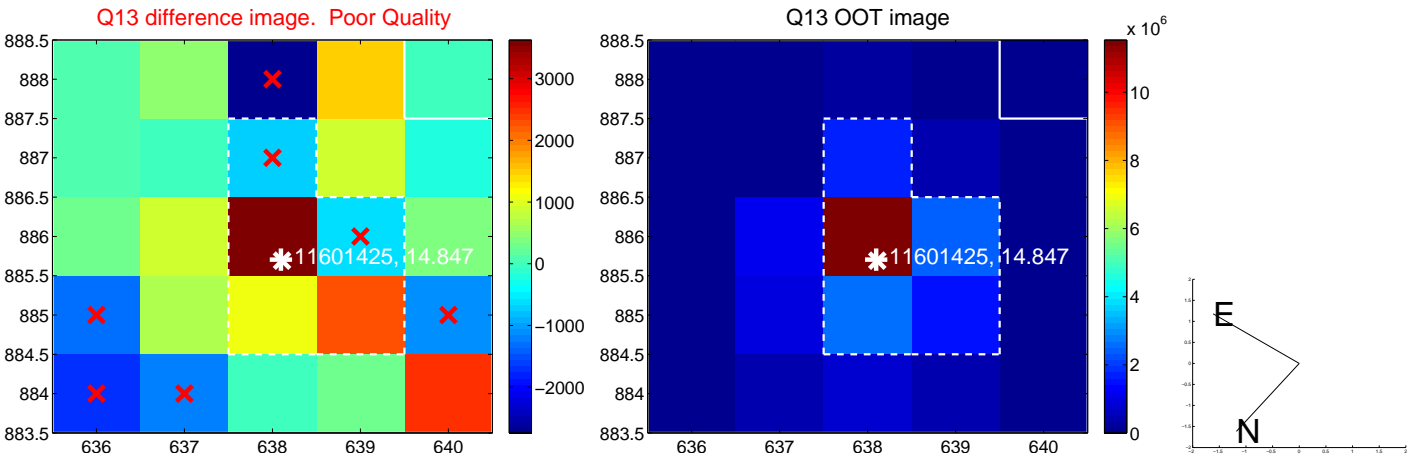
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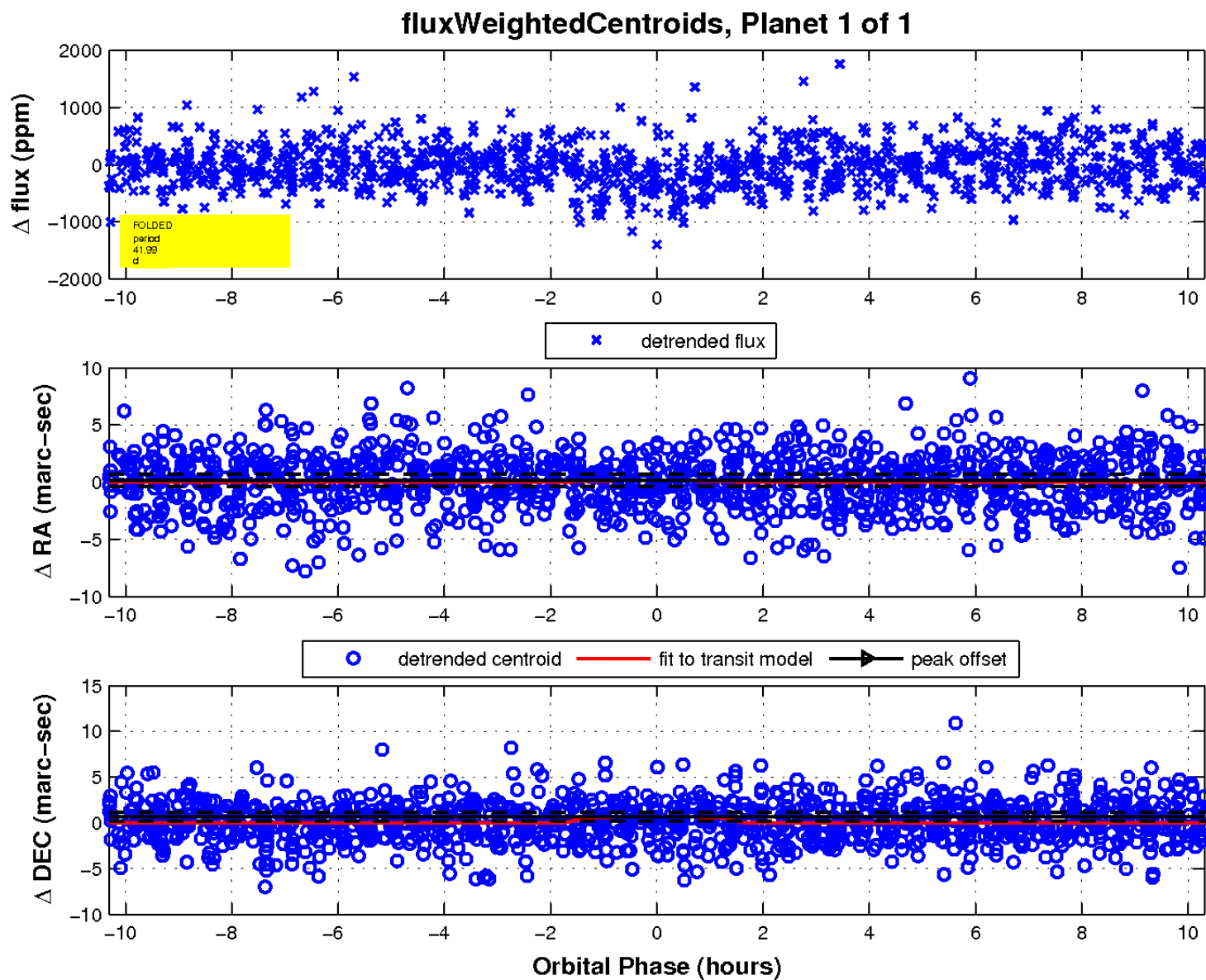
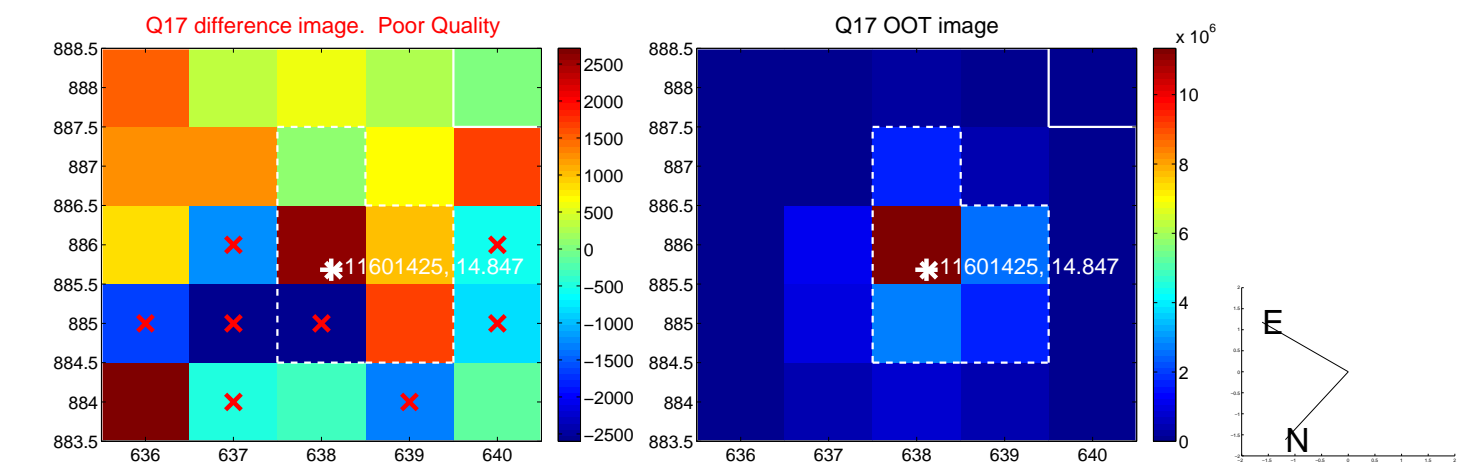
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UKIRT Image

Declination

