

KIC 011019987

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})
011019987-01	OBS	3060.01	6.913276	138.413454	39.6	5.031	10.0	10.8	1.44	6296	1.10	505.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011019987-01	OBS	PC	0.98	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.

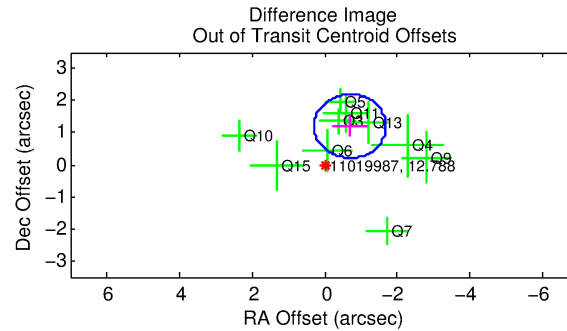
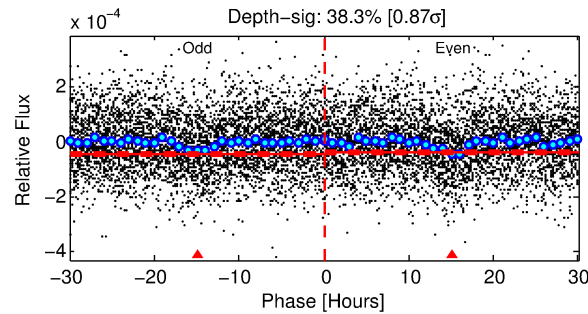
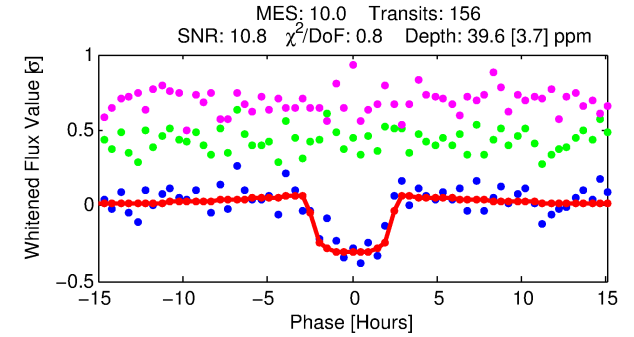
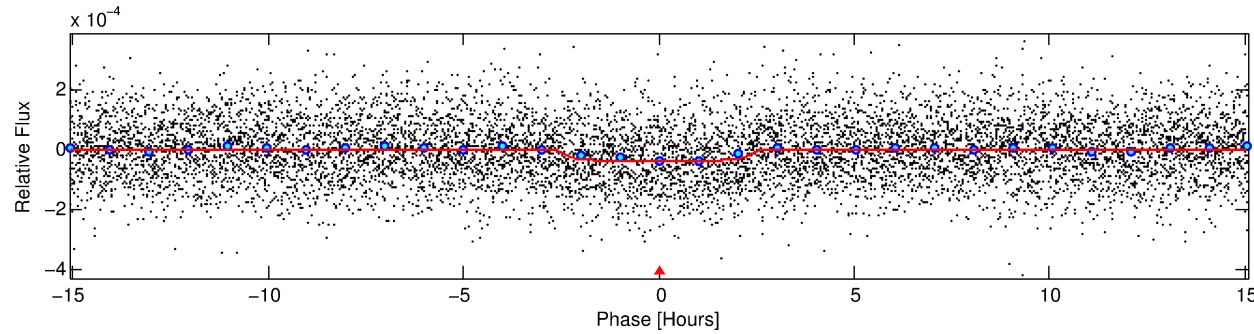
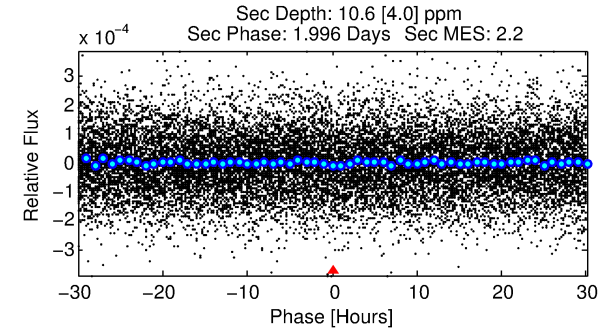
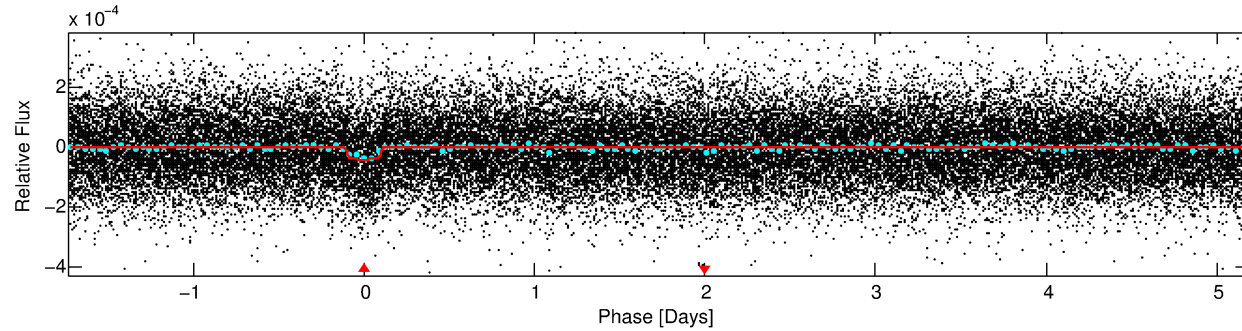
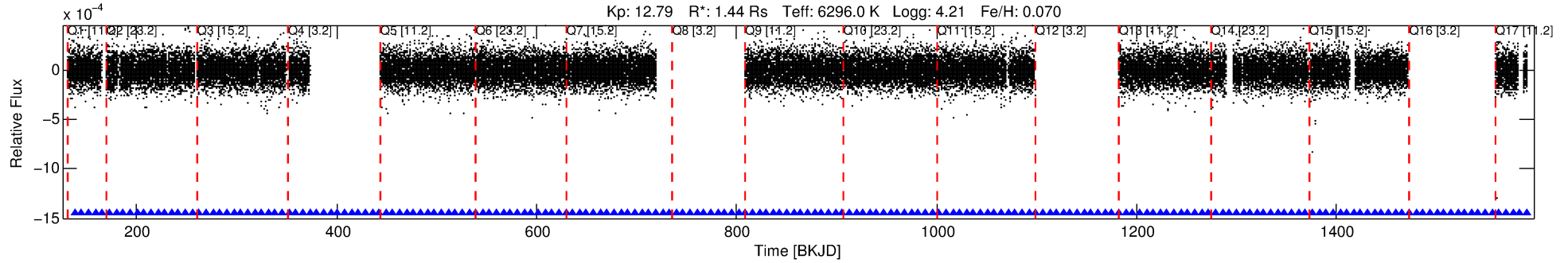
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011019987-01

No Significant Match Found

DV One-Page Summary

KIC: 11019987 Candidate: 1 of 1 Period: 6.913 d
KOI: K03060.01 Corr: 0.947



DV Fit Results:

Period = 6.91328 [0.00006] d
Epoch = 138.4135 [0.0066] BKJD
Rp/R* = 0.0070 [0.0019]
a/R* = 4.23 [6.14]
b = 0.93 [0.24]
Seff = 505.77 [120.50]
Teq = 1209 [72] K
Rp = 1.10 [0.36] Re
a = 0.0762 [0.0115] AU
Ag = 28.19 [19.93] [1.36σ]
Teffp = 4308 [727] K [4.24σ]

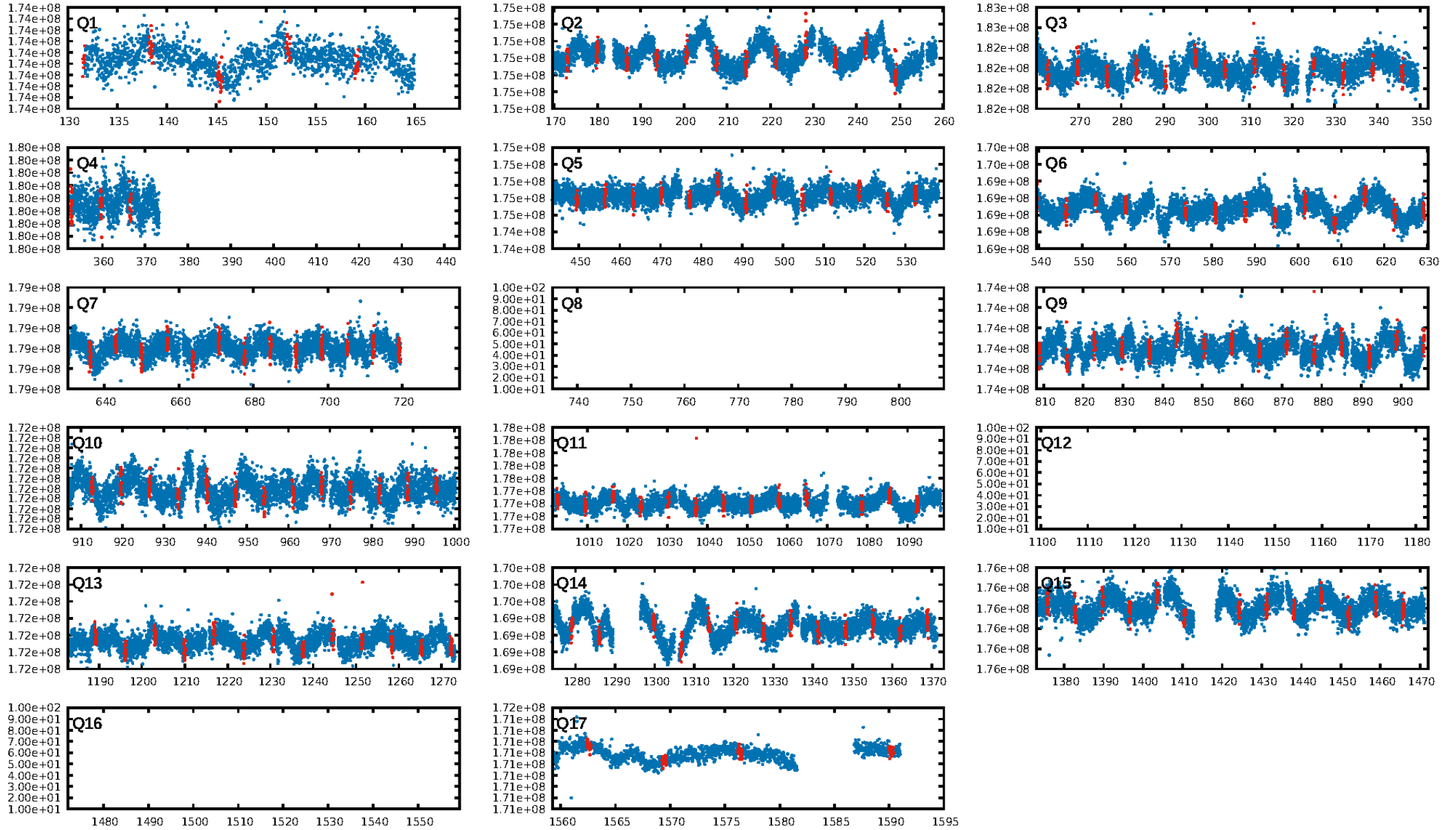
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.52e-23
RollingBand-fgt: 1.00 [144/144]
GhostDiagnostic-chr: 1.893
Centroid-sig: 0.1%
Centroid-so: 1.701 arcsec [1.78σ]
OotOffset-rm: 1.389 arcsec [4.20σ]
KicOffset-rm: 1.528 arcsec [4.20σ]
OotOffset-st: 2/4/1/3 [10]
KicOffset-st: 2/4/1/3 [10]
DiffImageQuality-fgm: 0.90 [9/10]
DiffImageOverlap-fno: 1.00 [14/14]

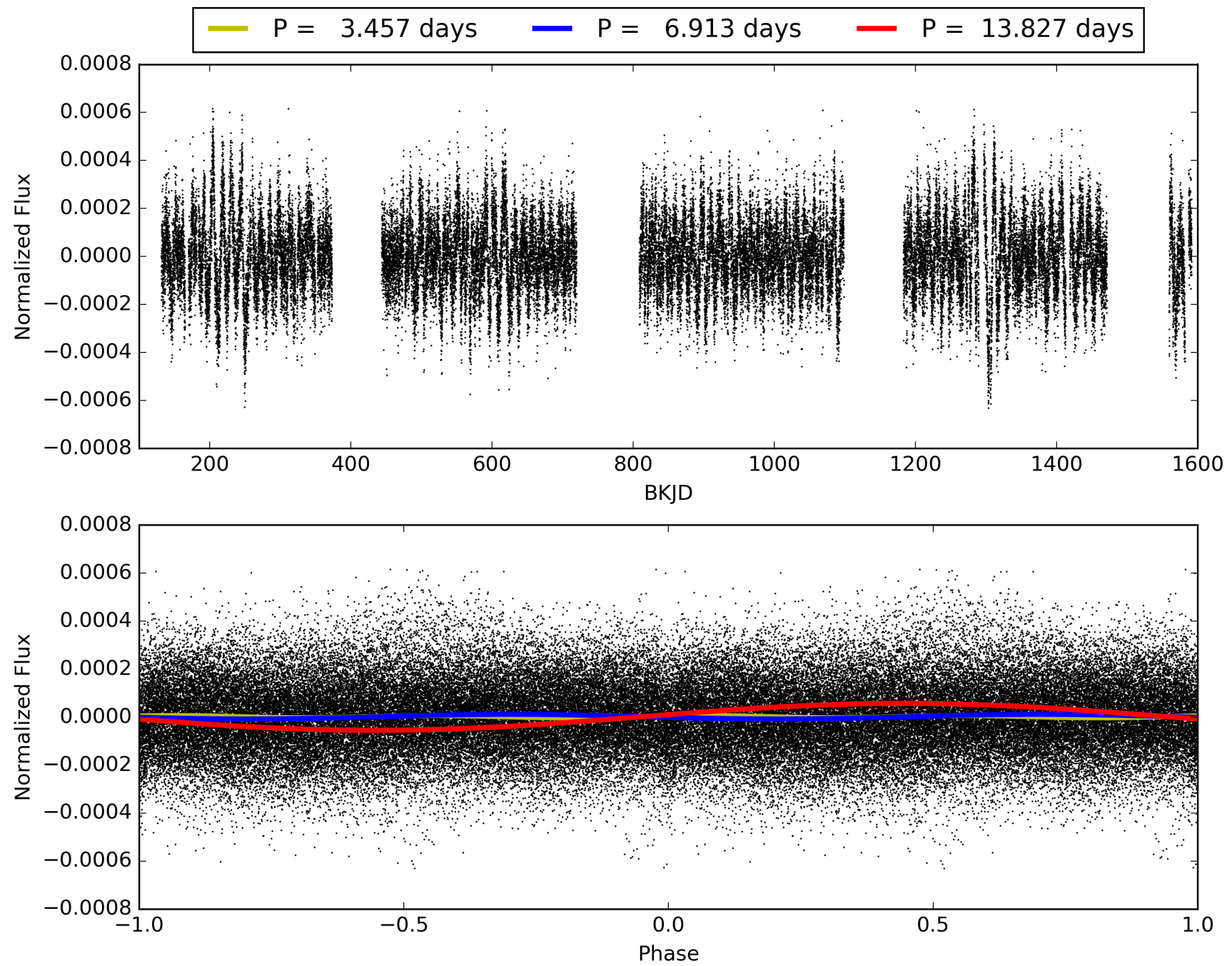
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:57:29 Z

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

TCE 011019987-01, PDC Light Curves

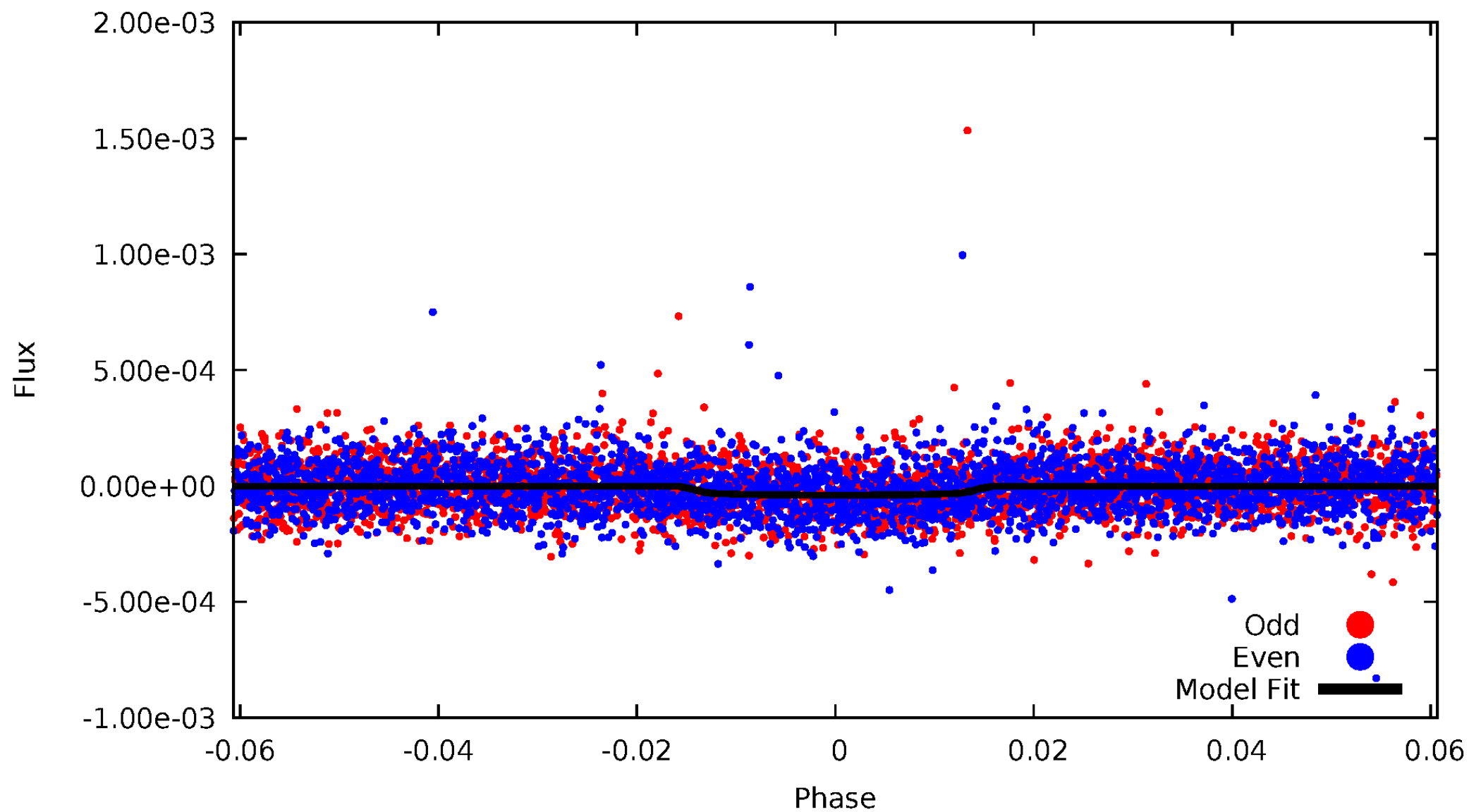


TCE 011019987-01



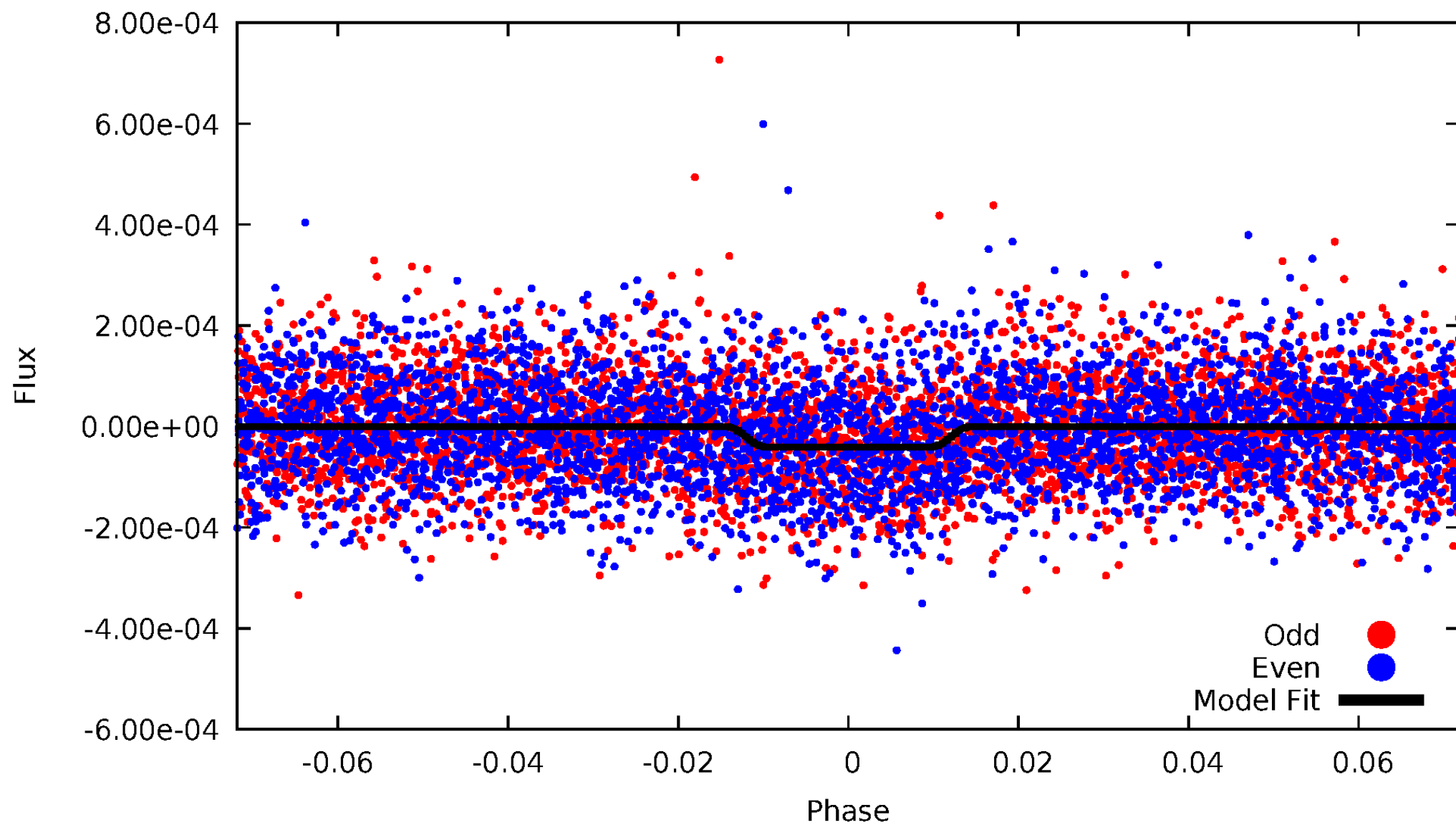
DV Odd/Even

TCE 011019987-01



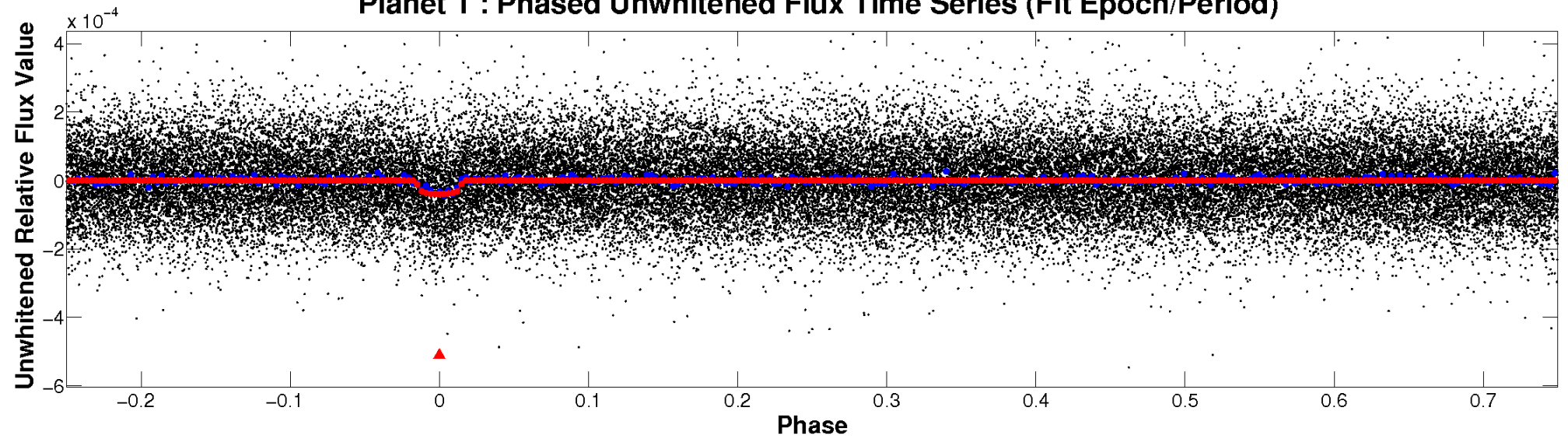
ALT Odd/Even

TCE 011019987-01

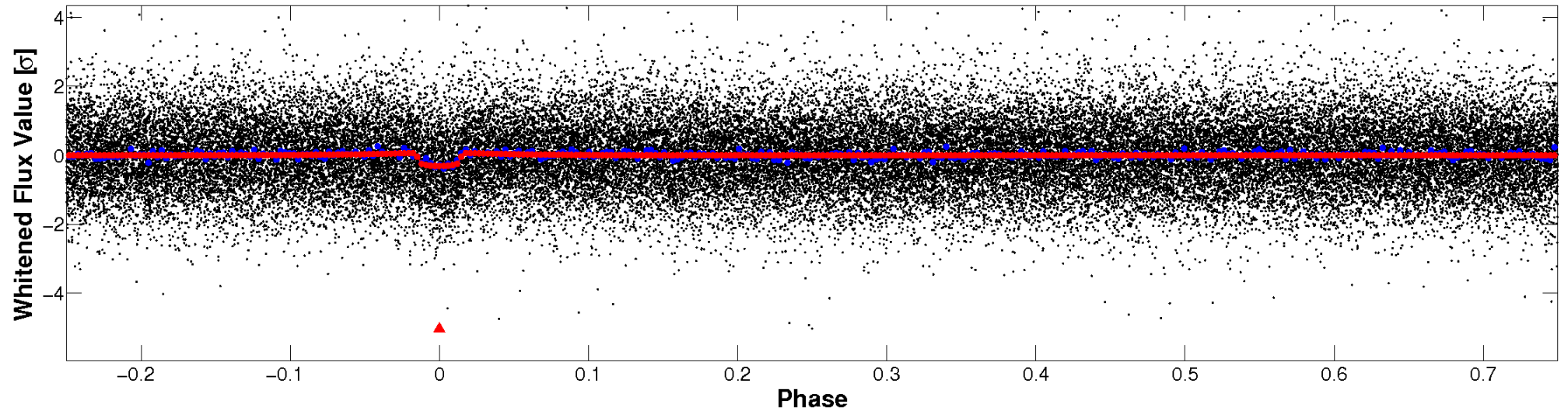


Non-Whitened Vs. Whitened Light Curve

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

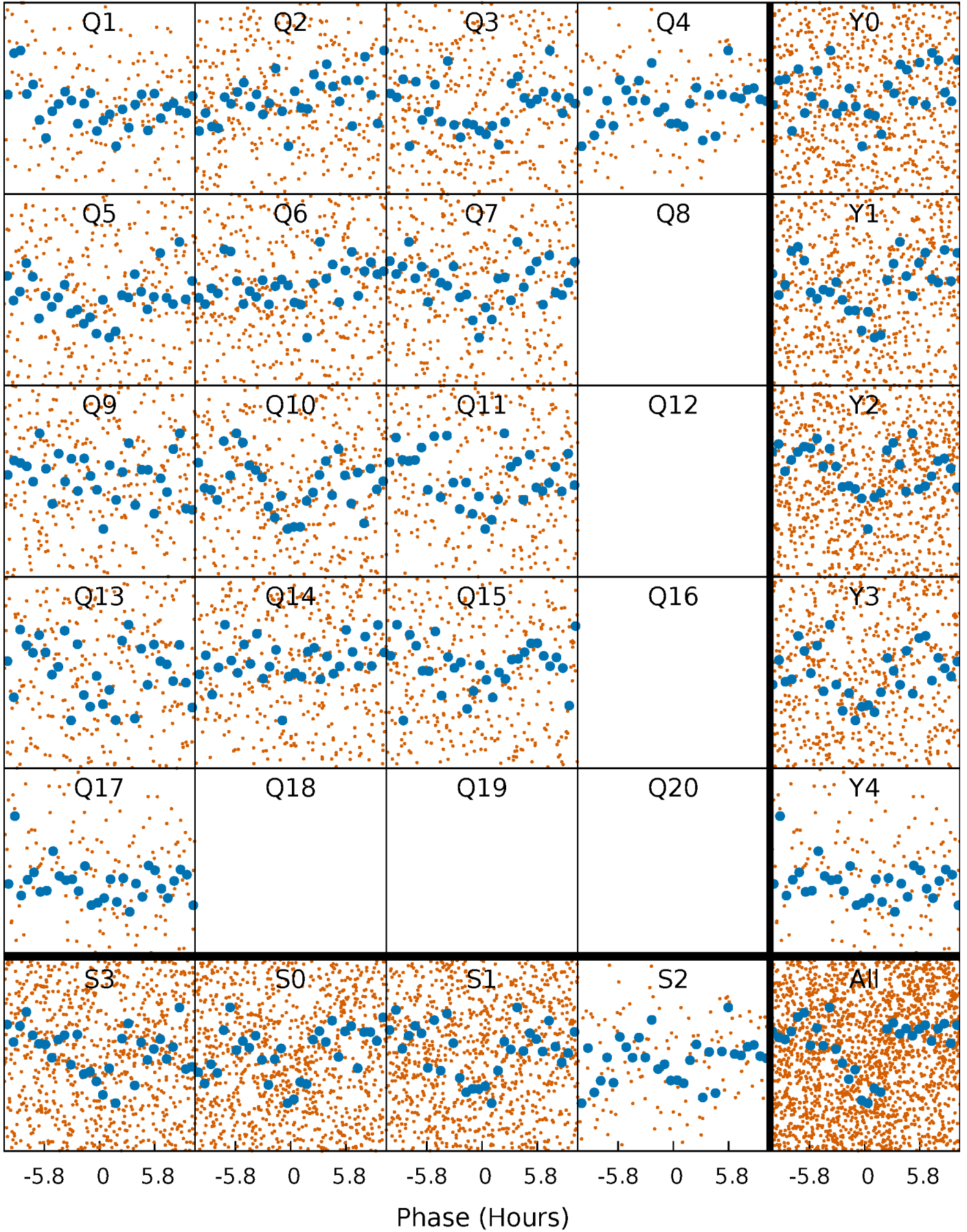


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



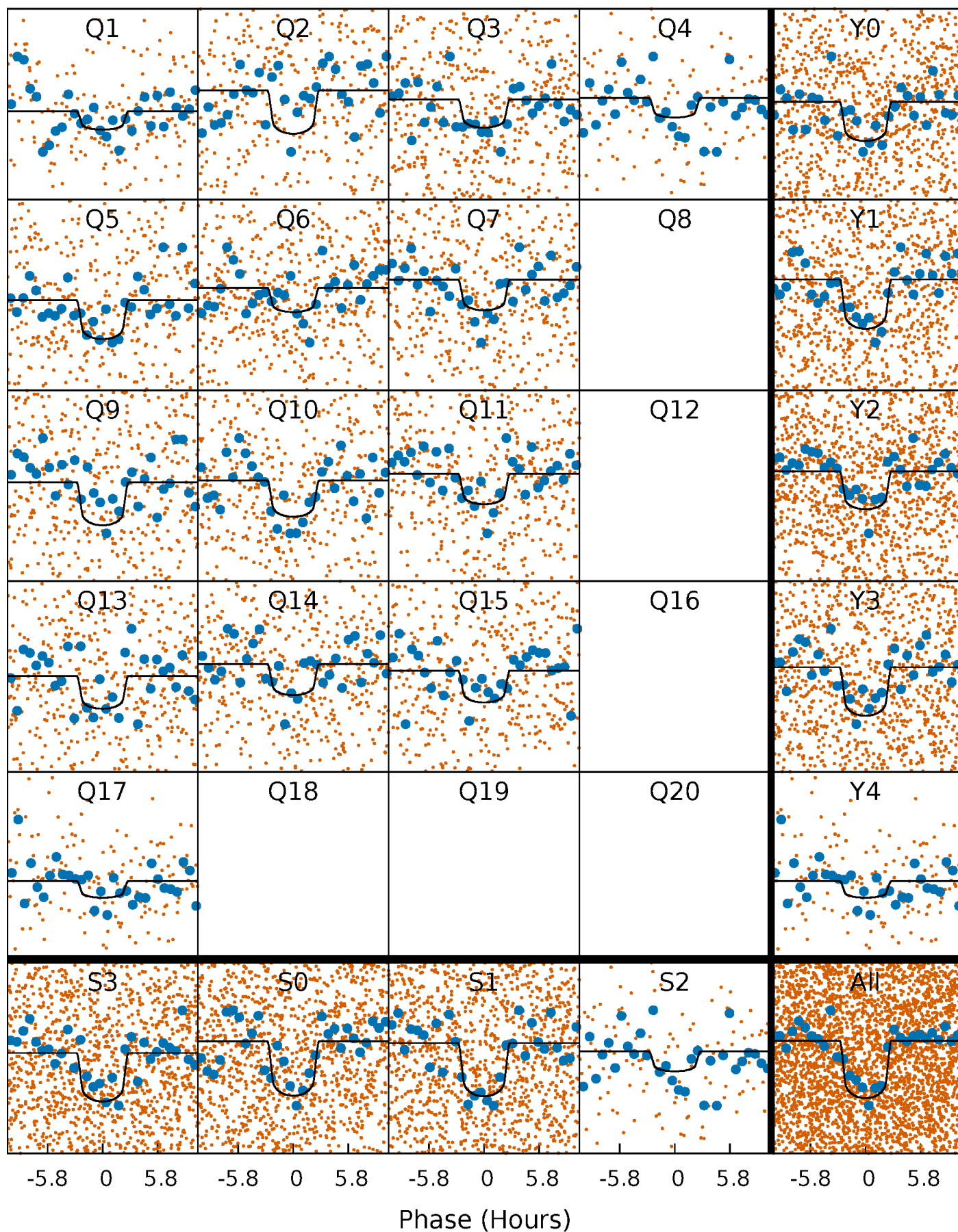
PDC Quarter-Phased Transit Curves

TCE 011019987-01 P= 6.913276 Days $T_0=138.413454$ (BKJD)



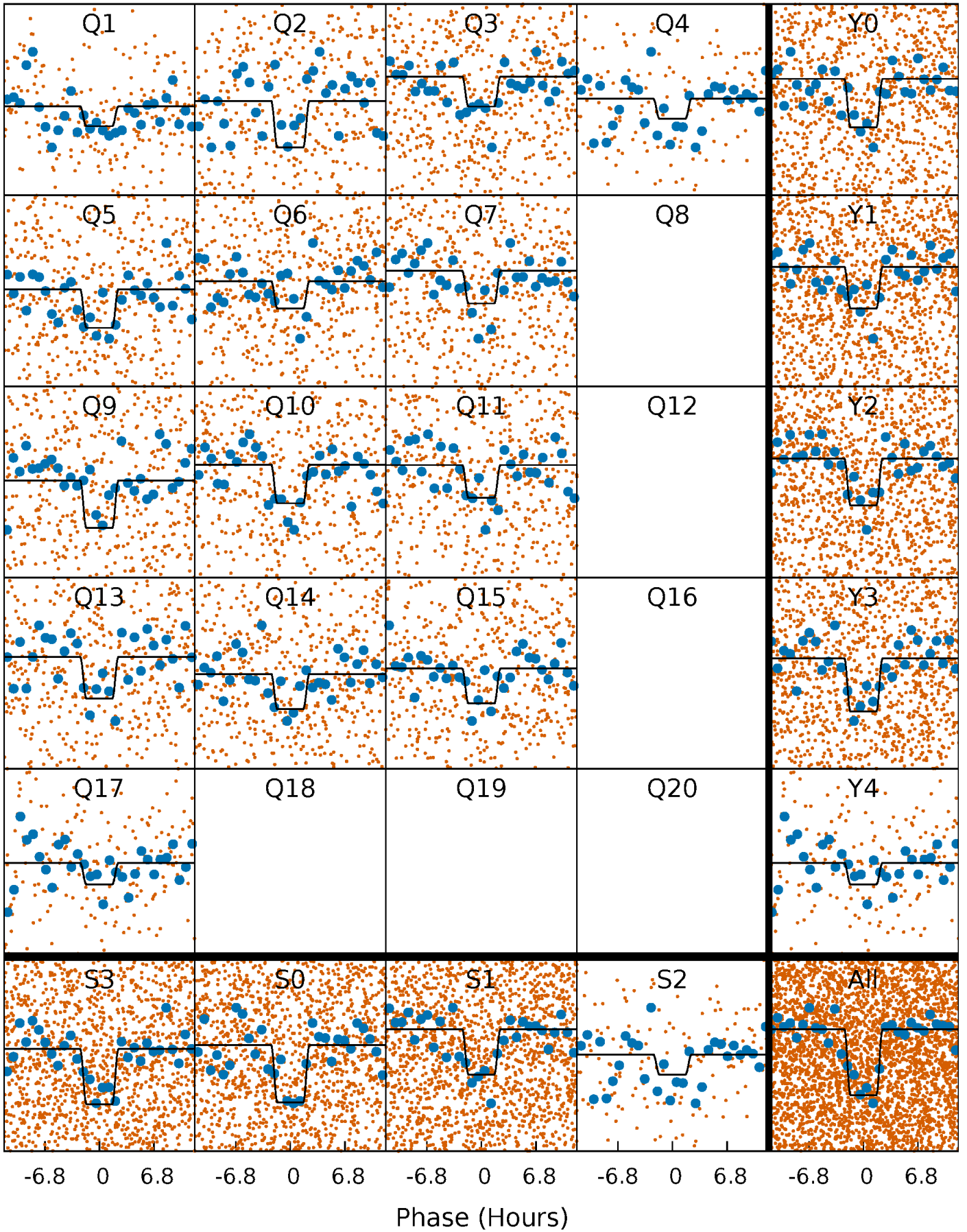
DV Quarter-Phased Transit Curves

TCE 011019987-01 P= 6.913276 Days $T_0=138.413454$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

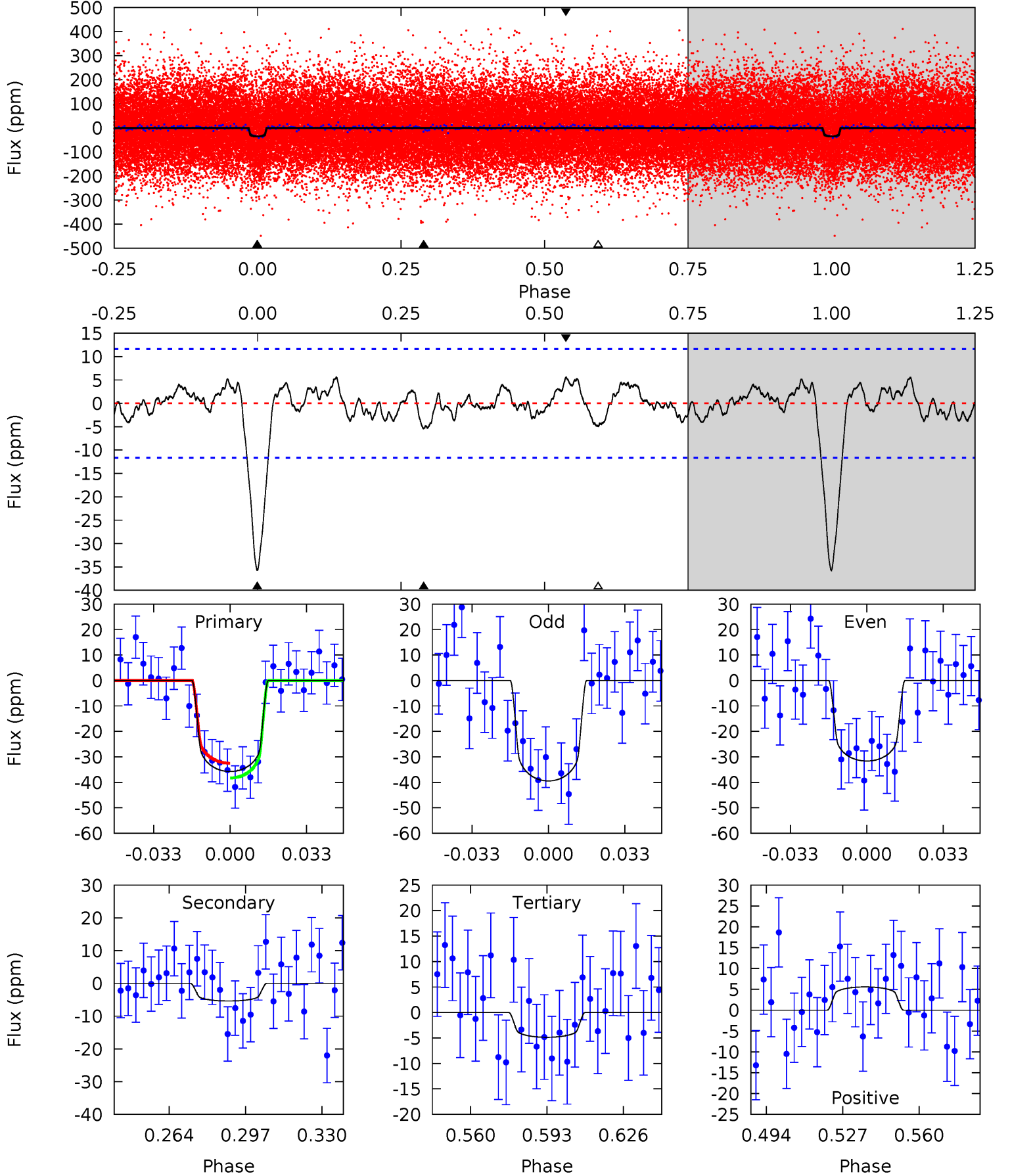
TCE 011019987-01 P= 6.913182 Days $T_0=138.423829$ (BKJD)



DV Model-Shift Uniqueness Test

011019987-01, P = 6.913276 Days, E = 131.500178 Days

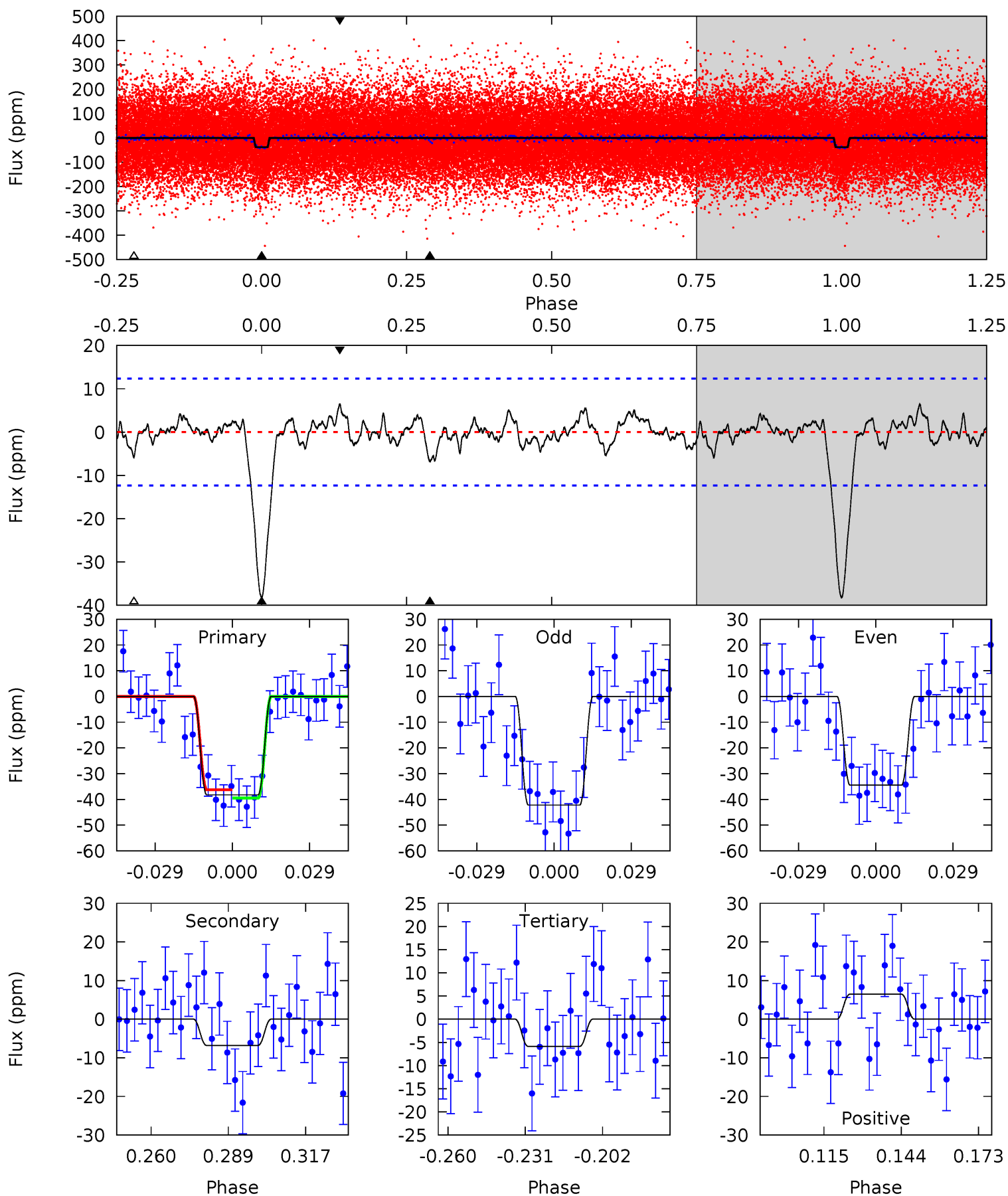
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	2.22	2.00	2.30	4.79	2.13	0.99	12.7	12.4	0.21	-0.08	1.61	1.05	0.13	1.20



Alt Model-Shift Uniqueness Test

011019987-01, P = 6.913182 Days, E = 131.510647 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	2.65	2.29	2.53	4.82	2.19	0.86	12.6	12.4	0.36	0.12	1.51	0.96	0.14	0.62



Stellar Parameters For KIC 011019987

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6296^{+113}_{-126}	$4.210^{+0.125}_{-0.125}$	$0.070^{+0.150}_{-0.150}$	$1.444^{+0.252}_{-0.227}$	$1.233^{+0.102}_{-0.114}$	$0.577^{+0.366}_{-0.207}$
	+2%/-2%	+3%/-3%	+214%/-214%	+17%/-16%	+8%/-9%	+63%/-36%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 011019987-01 / KOI 3060.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 2	$1.09^{+0.34}_{-0.32}$	1694^{+92}_{-76}	3941^{+648}_{-540}	13^{+18}_{-8}
Alt.	-7 ± 3	$0.98^{+0.35}_{-0.28}$	1692^{+83}_{-80}	4245^{+728}_{-497}	22^{+26}_{-11}

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 $A_{obs} \gg 1.0$

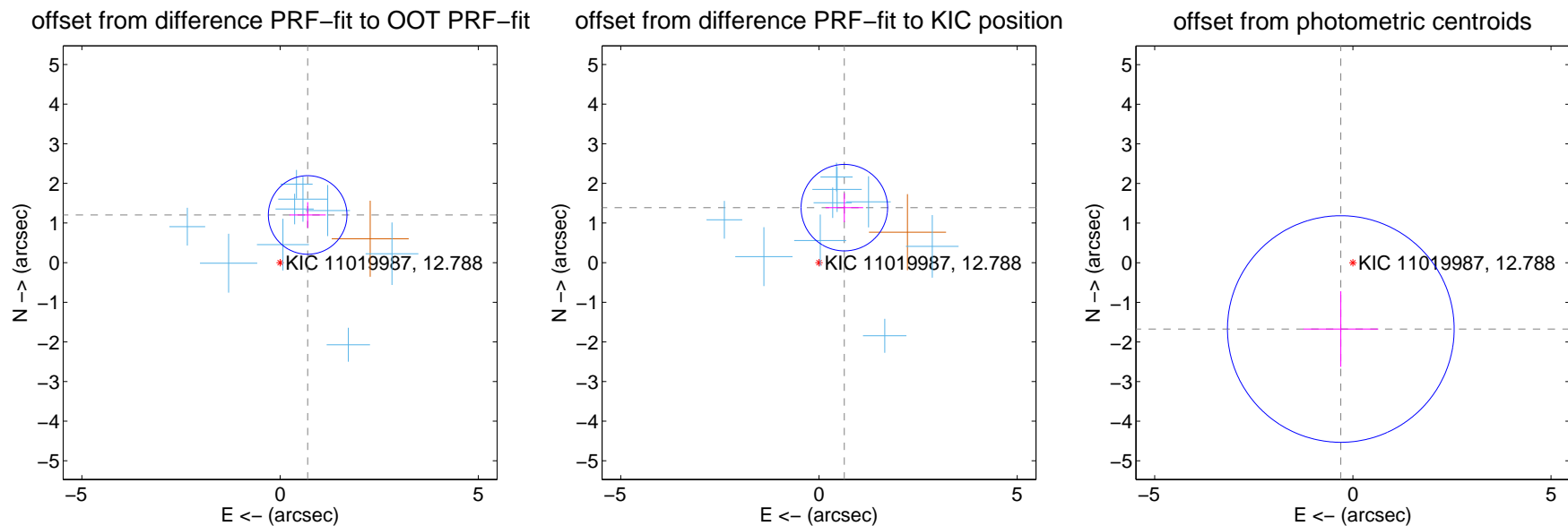
DV Centroid Data

Supplemental centroid analysis for 011019987-01. Kepler magnitude: 12.79. Transit SNR 10.83

There are 9 quarters with good PRF difference image offsets

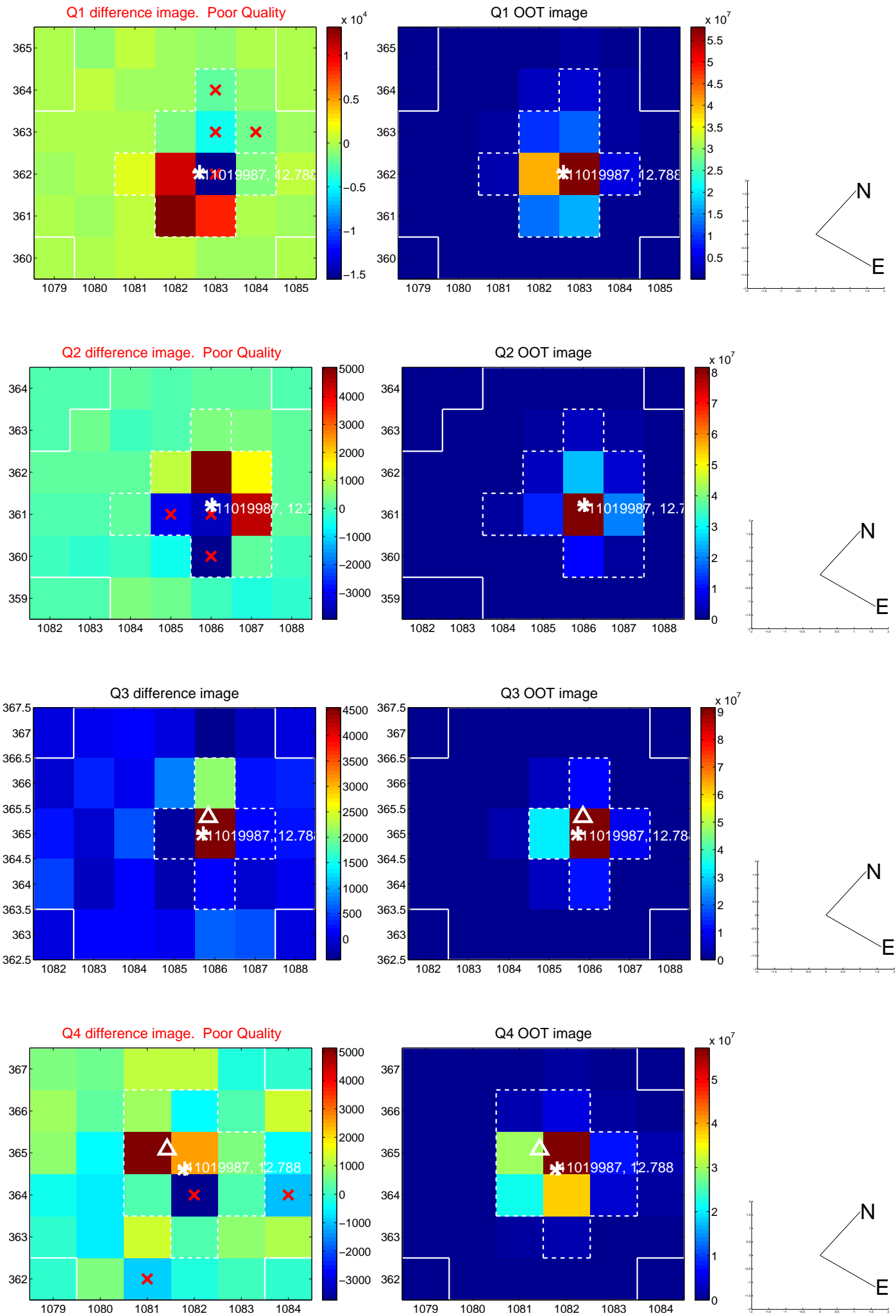
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.389 ± 0.330	4.20	-0.695 ± 0.457	1.203 ± 0.324
PRF-fit source offset from KIC position	1.528 ± 0.364	4.20	-0.639 ± 0.476	1.388 ± 0.365
photometric centroid source offset	1.70 ± 0.95	1.78	0.30 ± 0.94	-1.67 ± 0.95

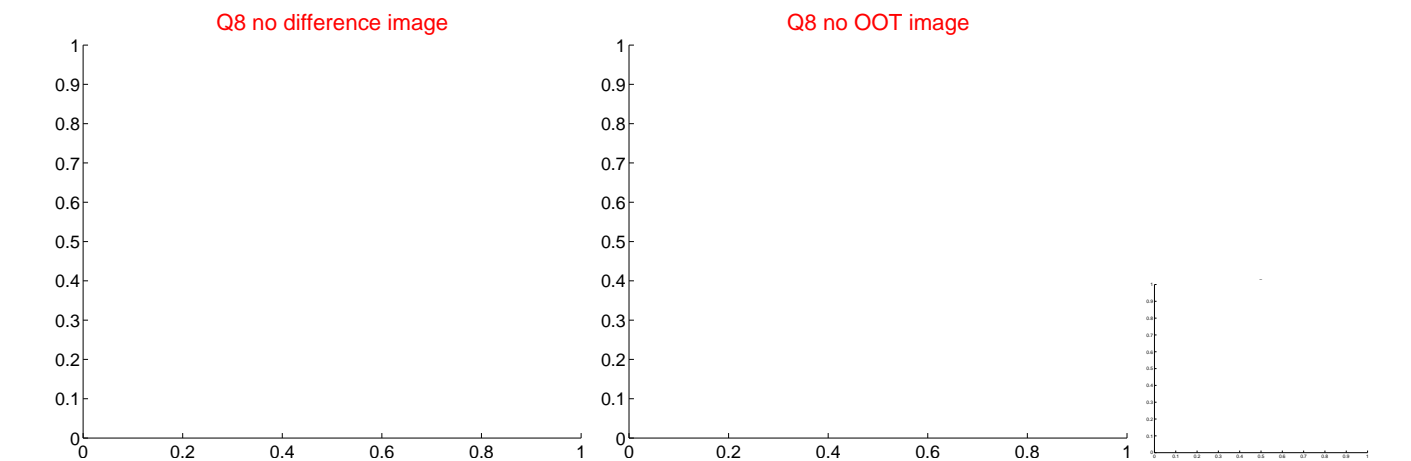
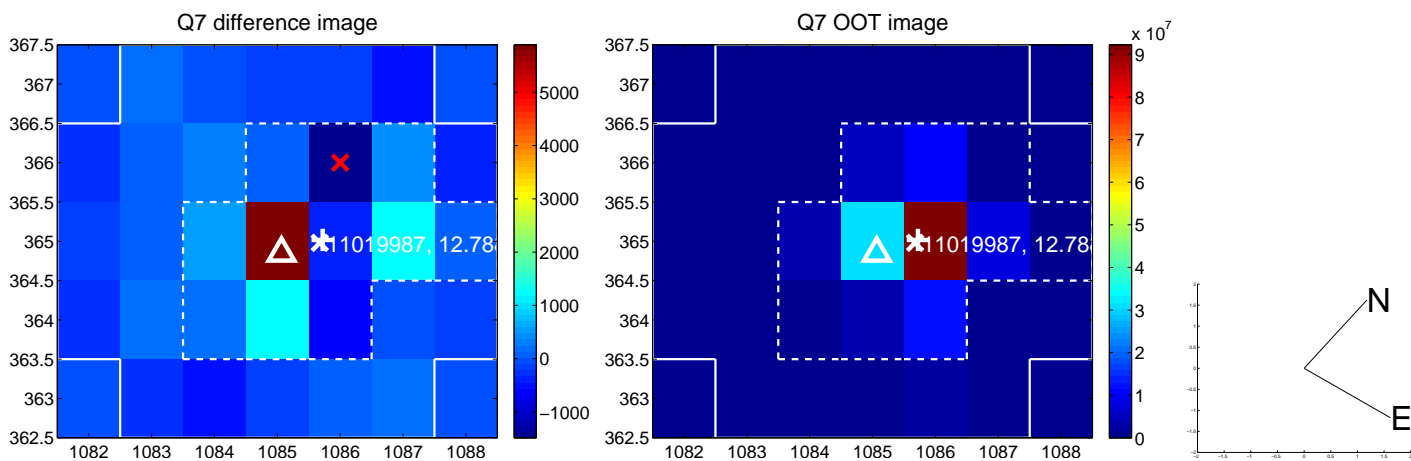
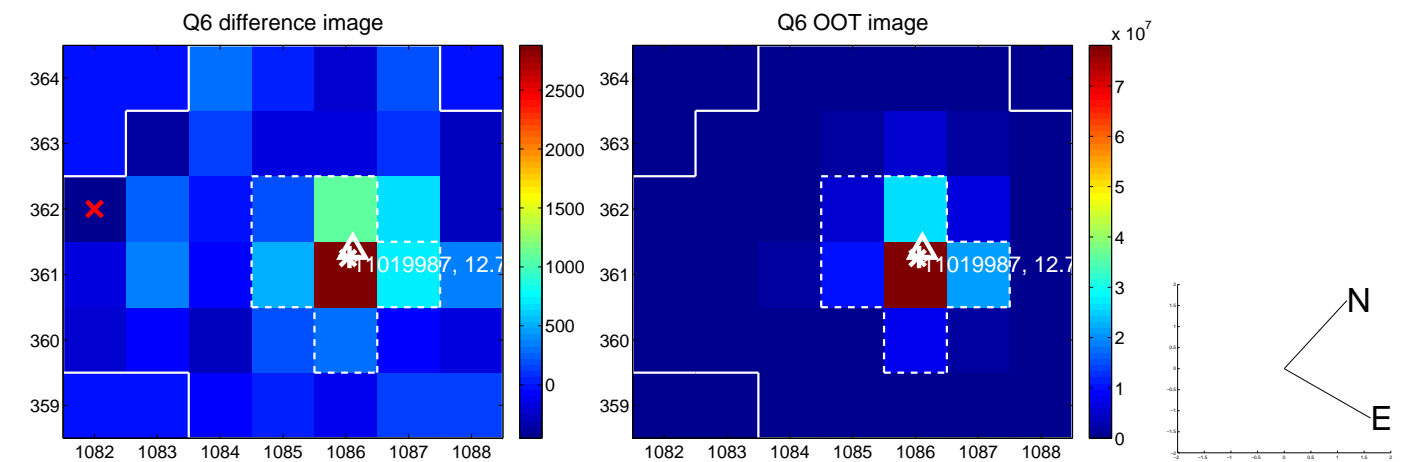
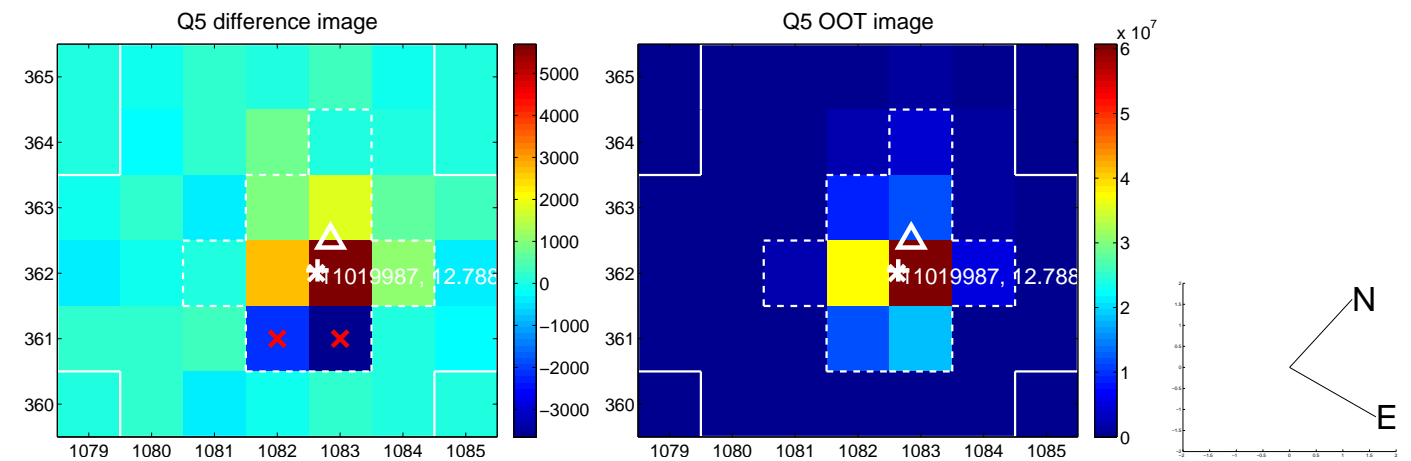


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

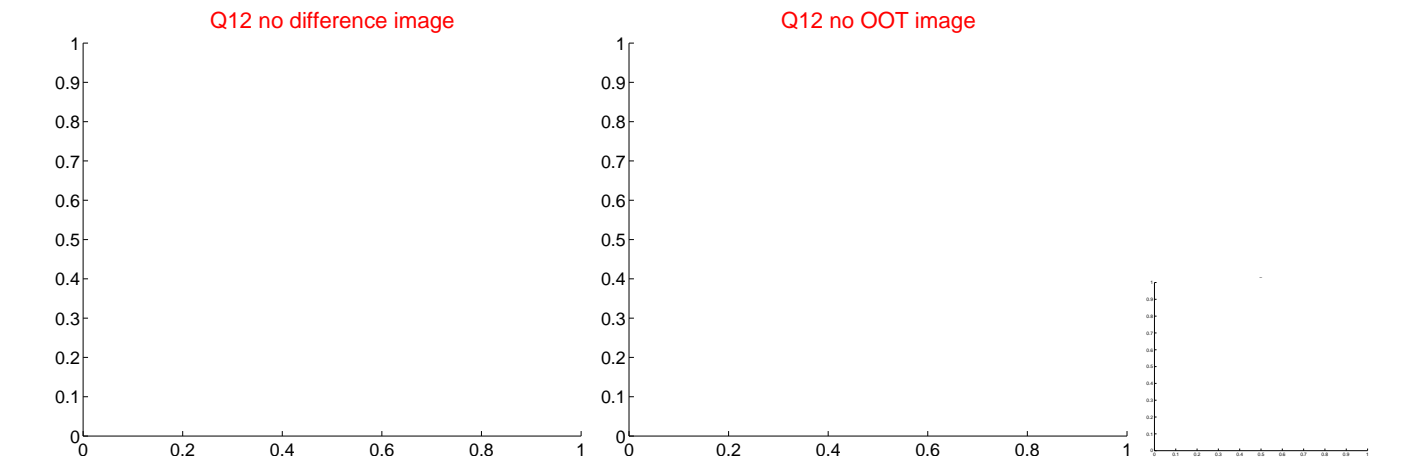
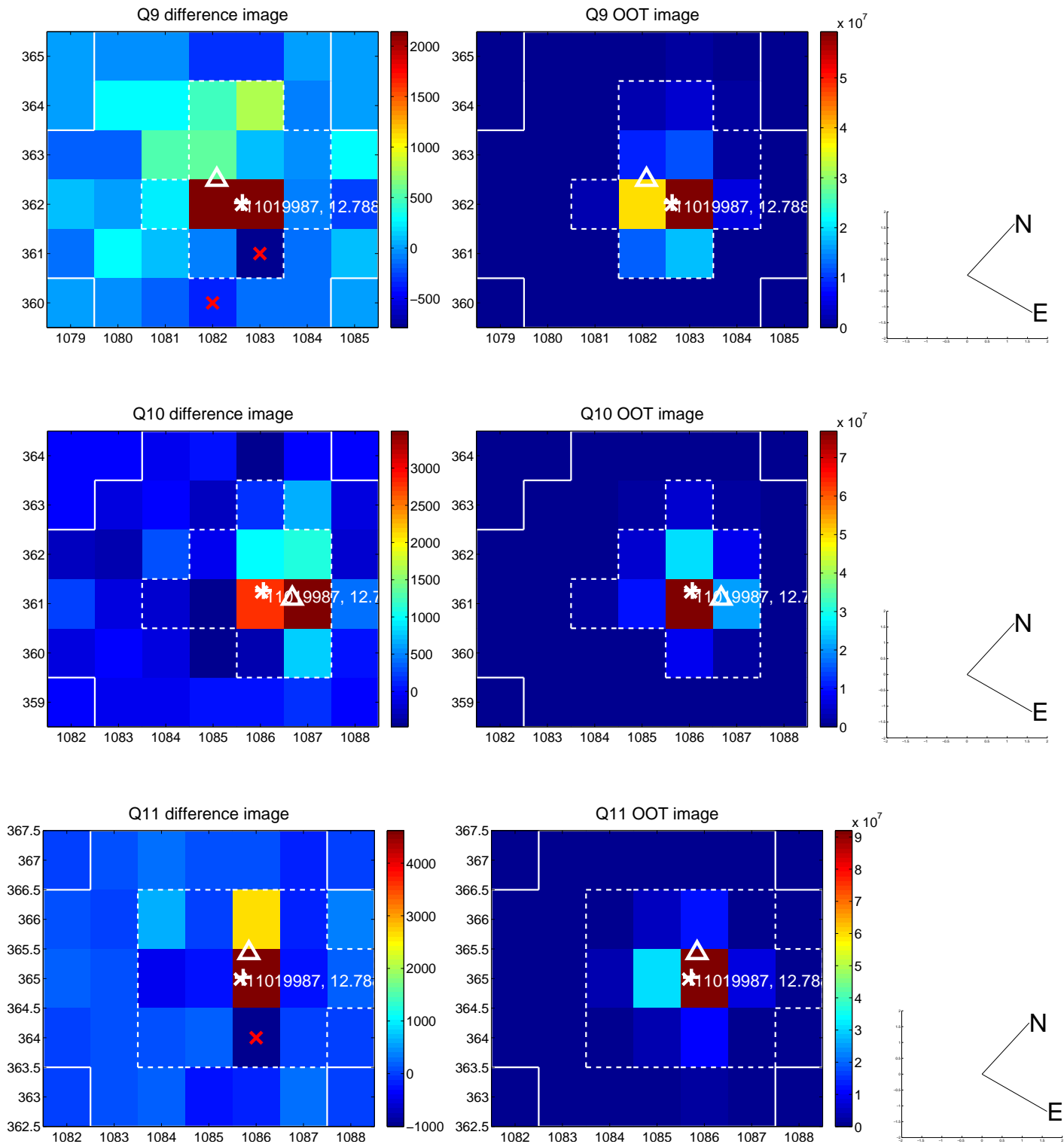
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



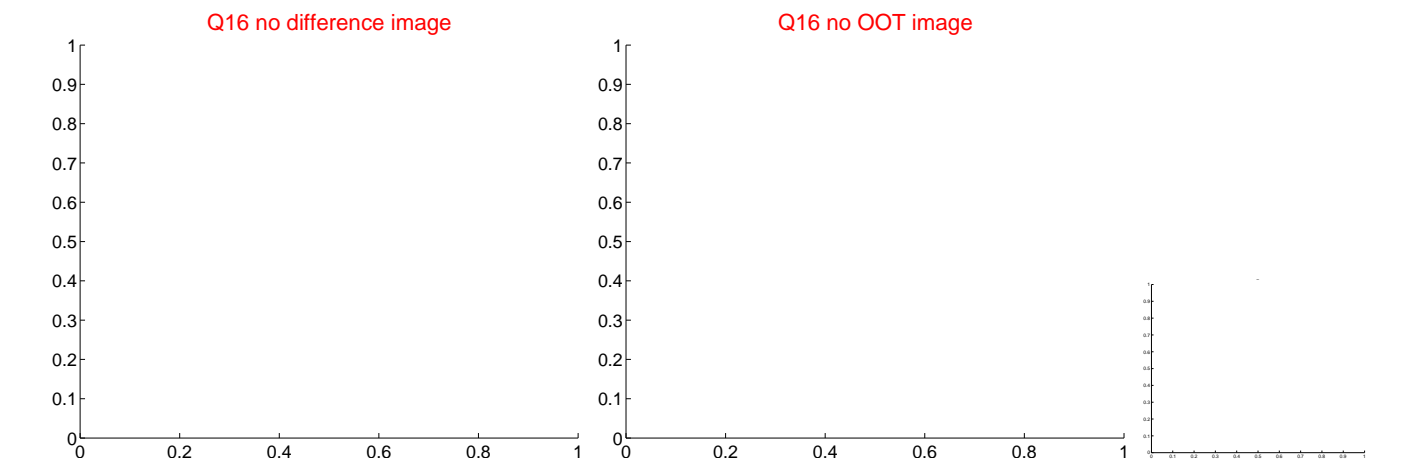
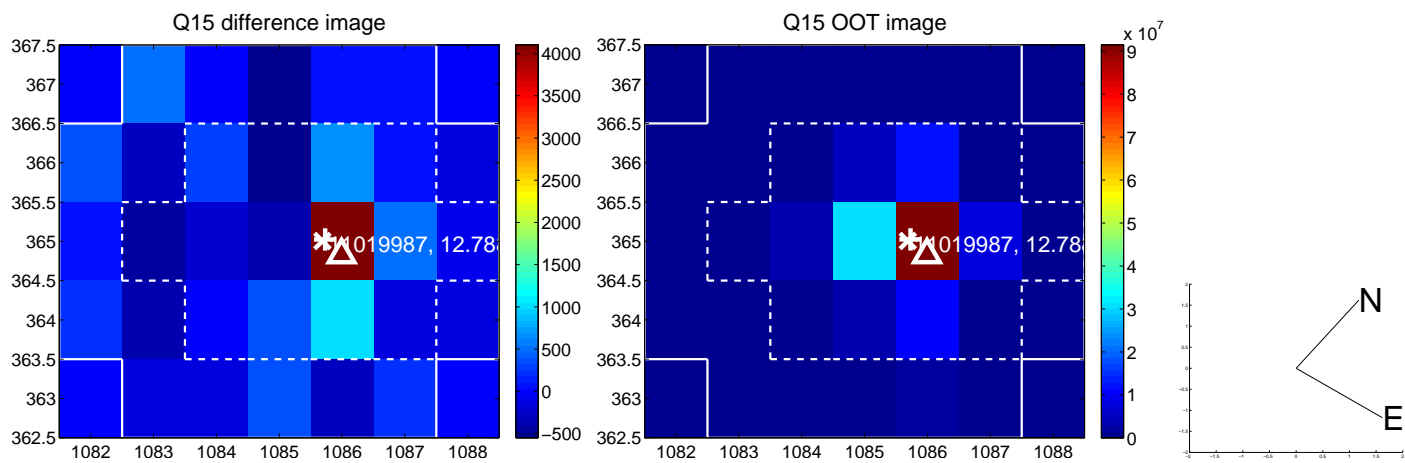
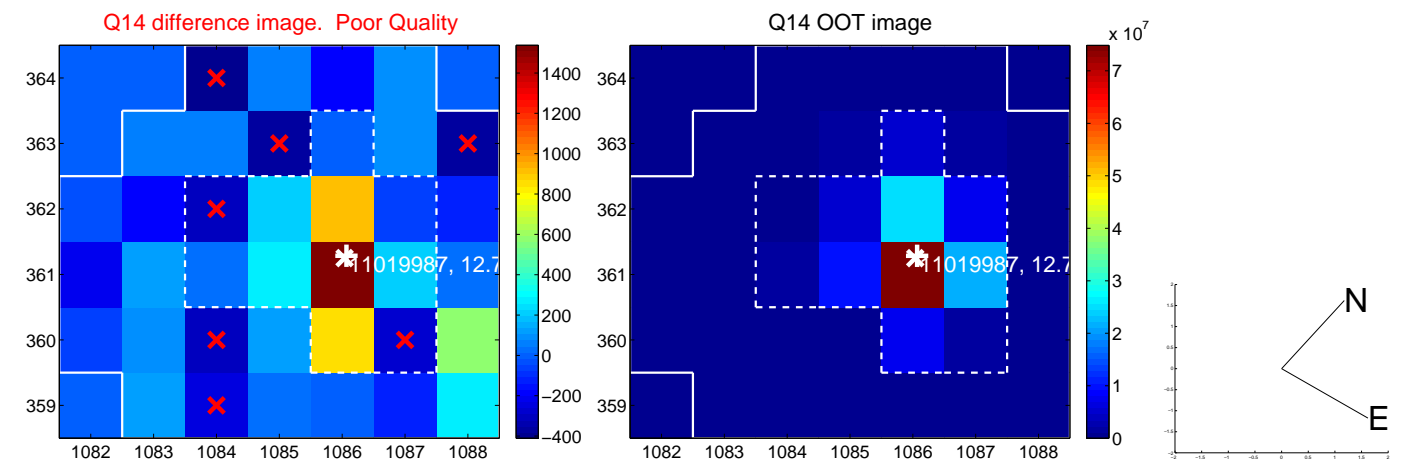
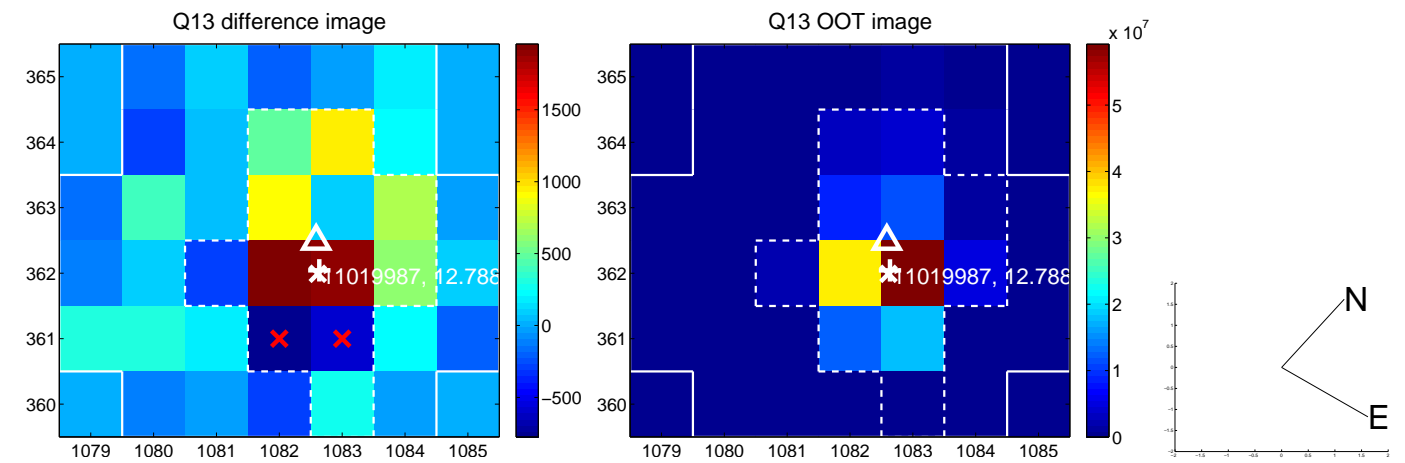
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



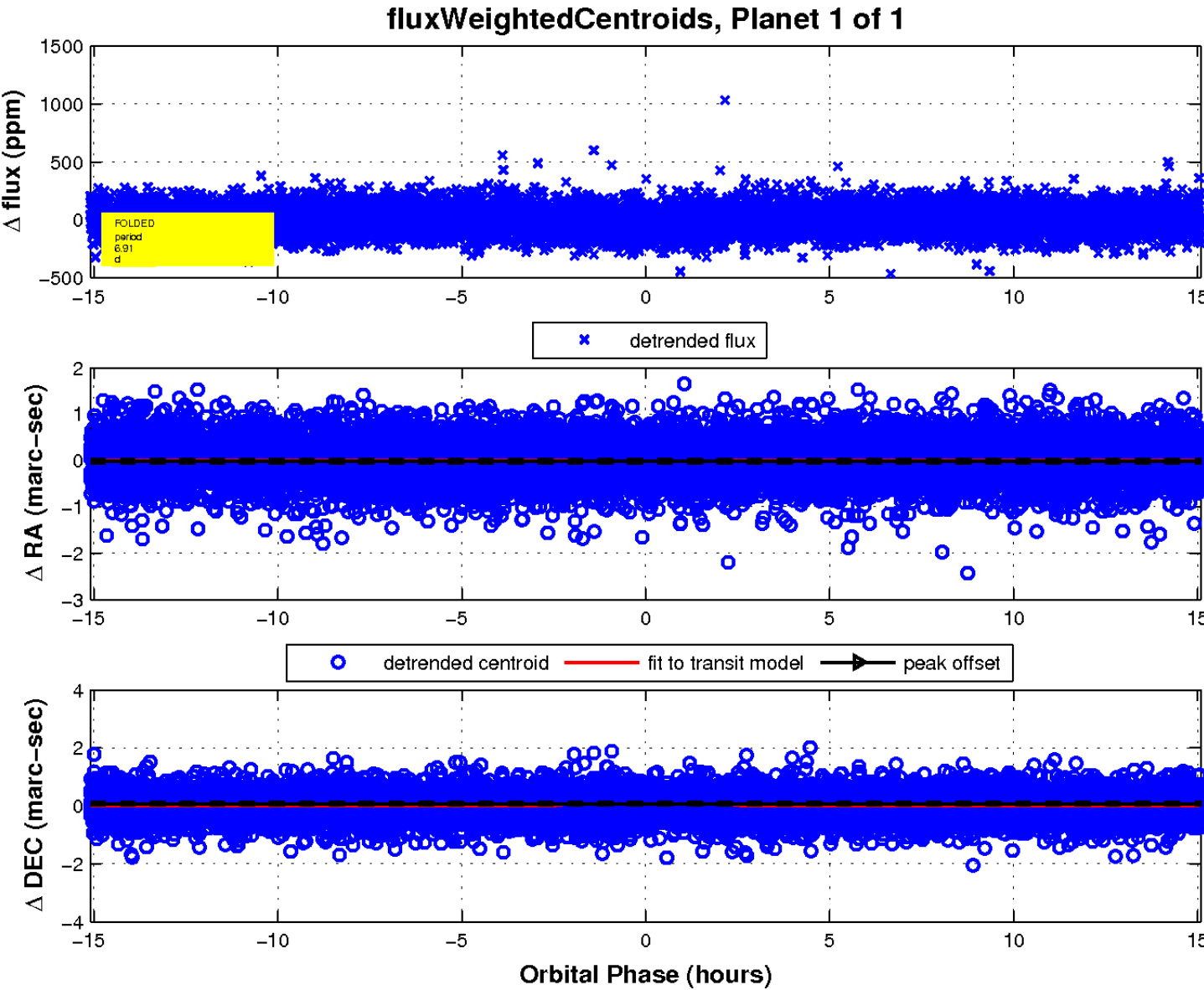
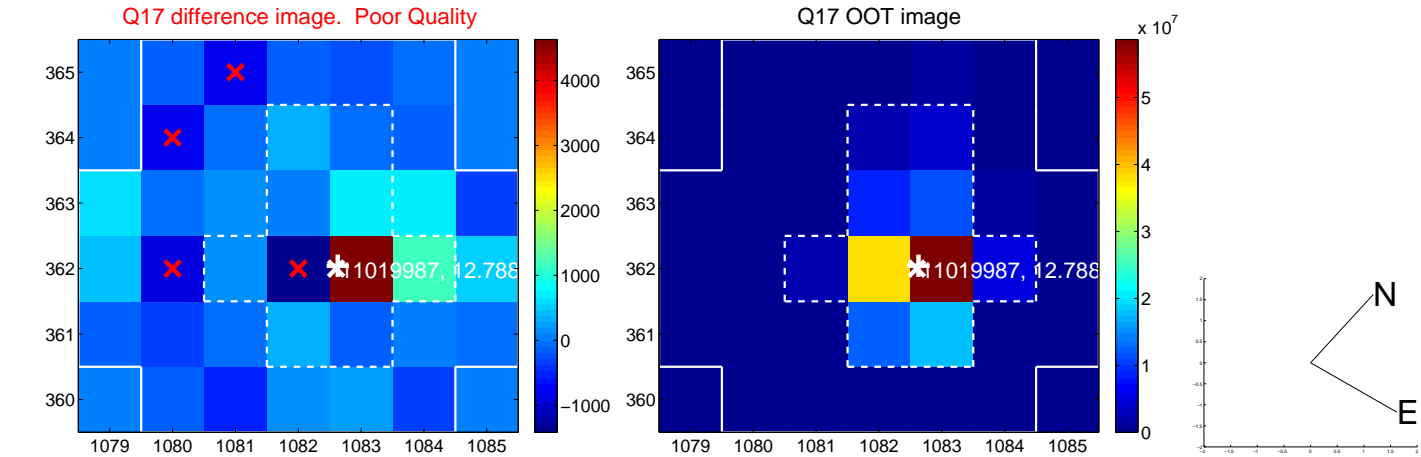
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UKIRT Image

Declination

