

KIC 005988031

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})
005988031-01	OBS	1047.01	2.555616	131.919383	87.8	6.679	18.3	19.7	0.90	5948	1.04	701.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005988031-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

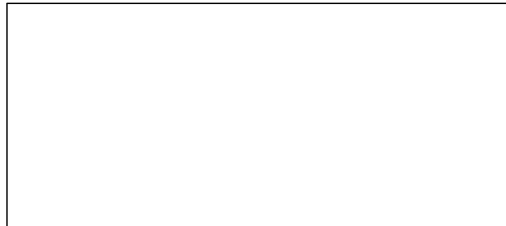
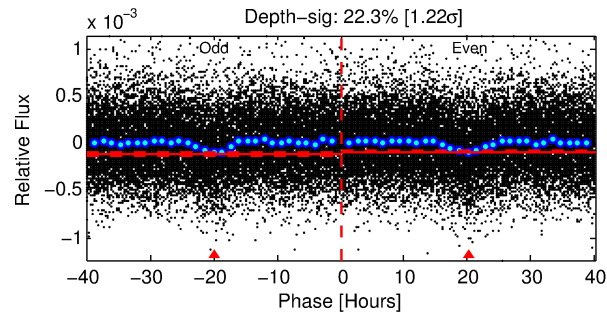
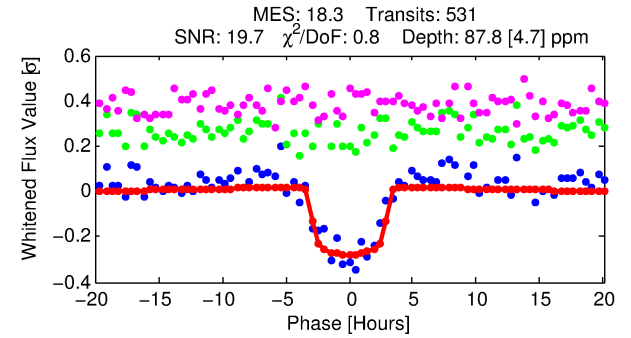
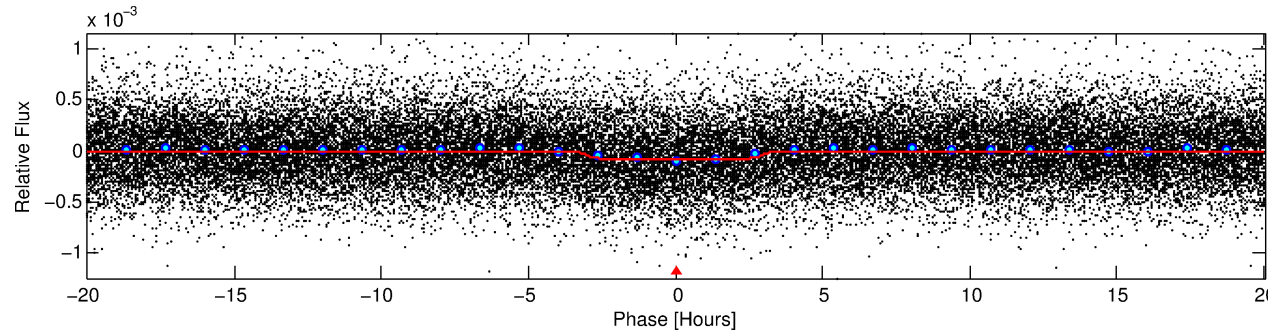
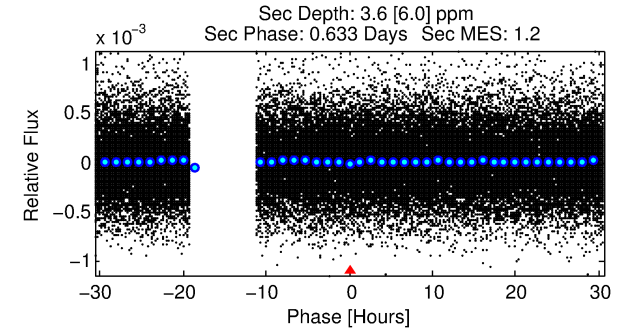
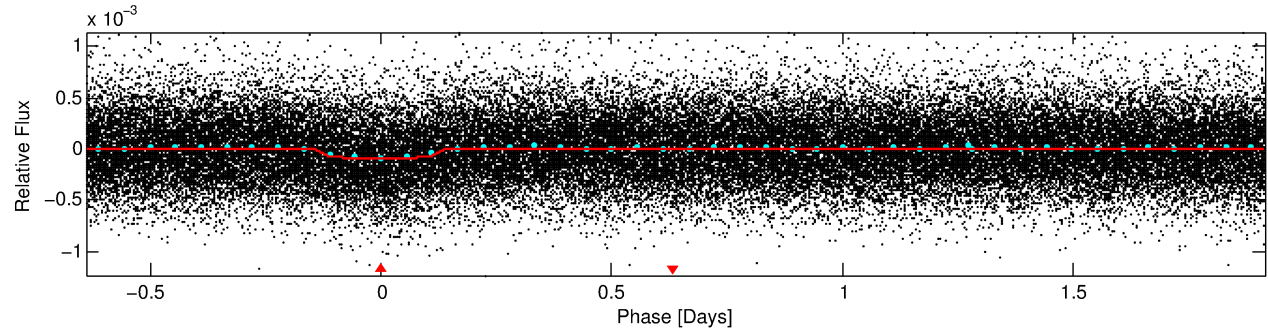
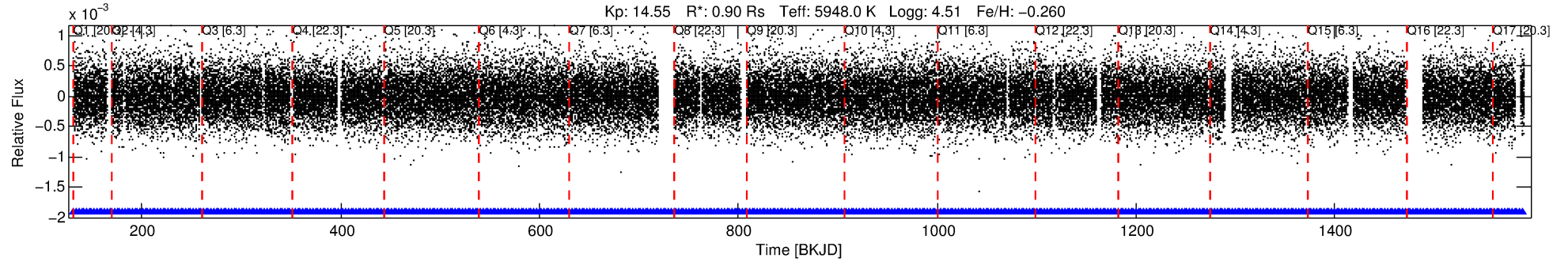
Ephemeris Match Information For 005988031-01

No Significant Match Found

DV One-Page Summary

KIC: 5988031 Candidate: 1 of 1 Period: 2.556 d

KOI: K01047.01 Corr: 0.859



DV Fit Results:

Period = 2.55562 [0.00002] d
Epoch = 131.9194 [0.0042] BKJD
Rp/R* = 0.0106 [0.0010]
a/R* = 1.46 [0.38]
b = 0.94 [0.06]
Seff = 701.78 [270.70]
Teq = 1312 [127] K
Rp = 1.04 [0.33] Re
a = 0.0360 [0.0091] AU
Ag = 2.36 [4.09] [0.33σ]
Teffp = 2514 [1070] K [1.12σ]

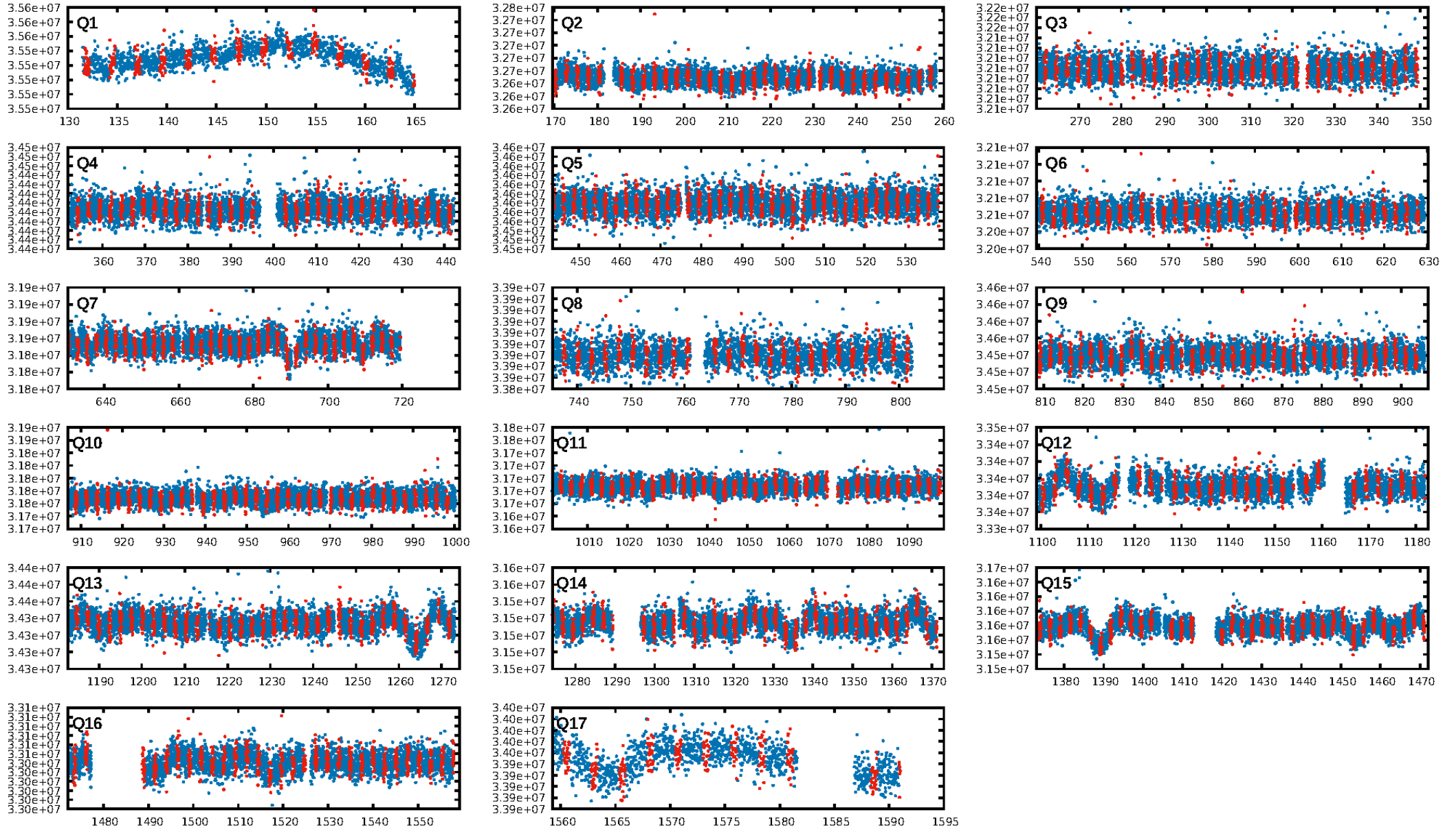
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.30e-66
RollingBand-fgt: 1.00 [508/508]
GhostDiagnostic-chr: -0.2189
Centroid-sig: 0.0%
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

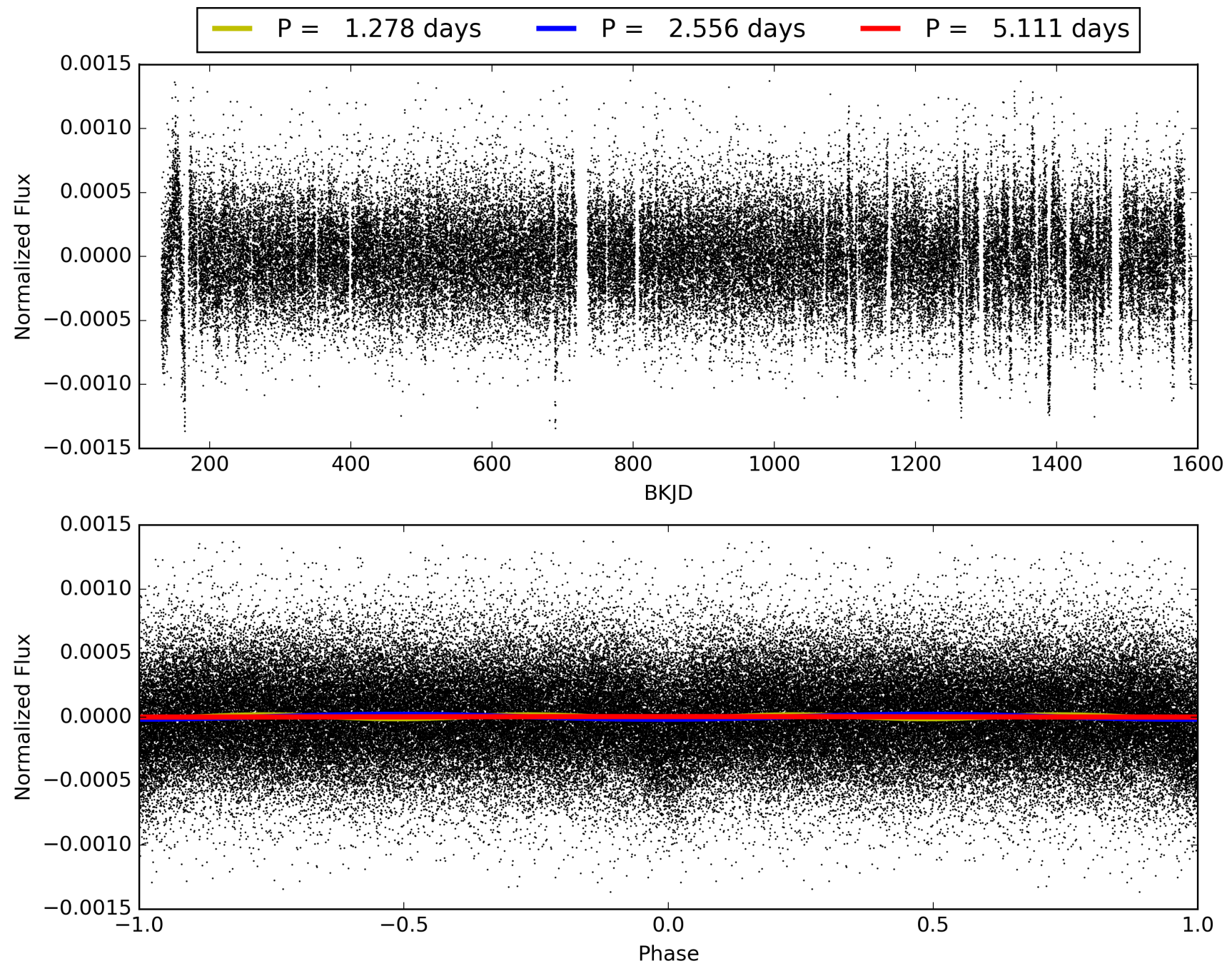
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:19:25 Z

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

TCE 005988031-01, PDC Light Curves

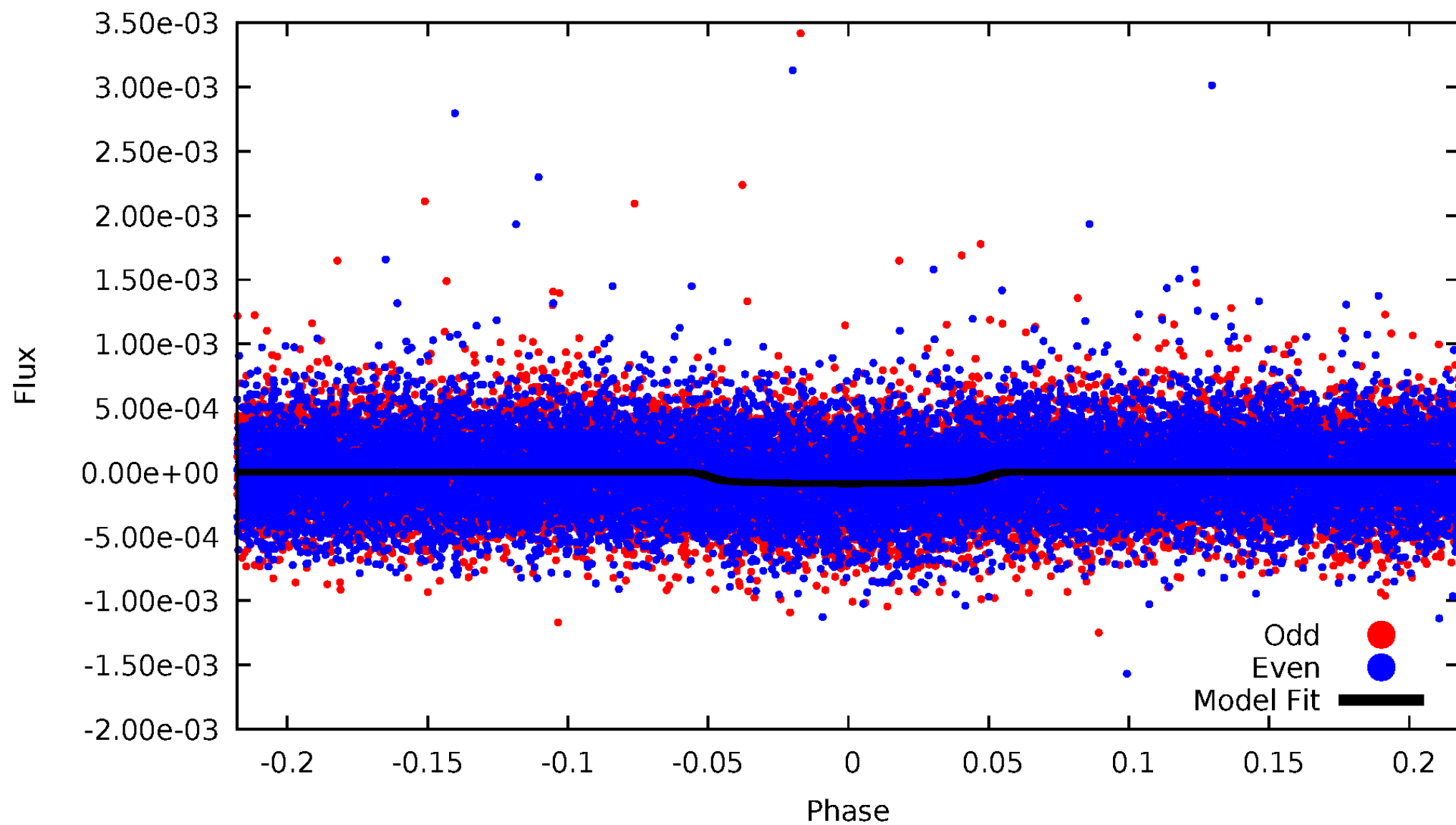


TCE 005988031-01



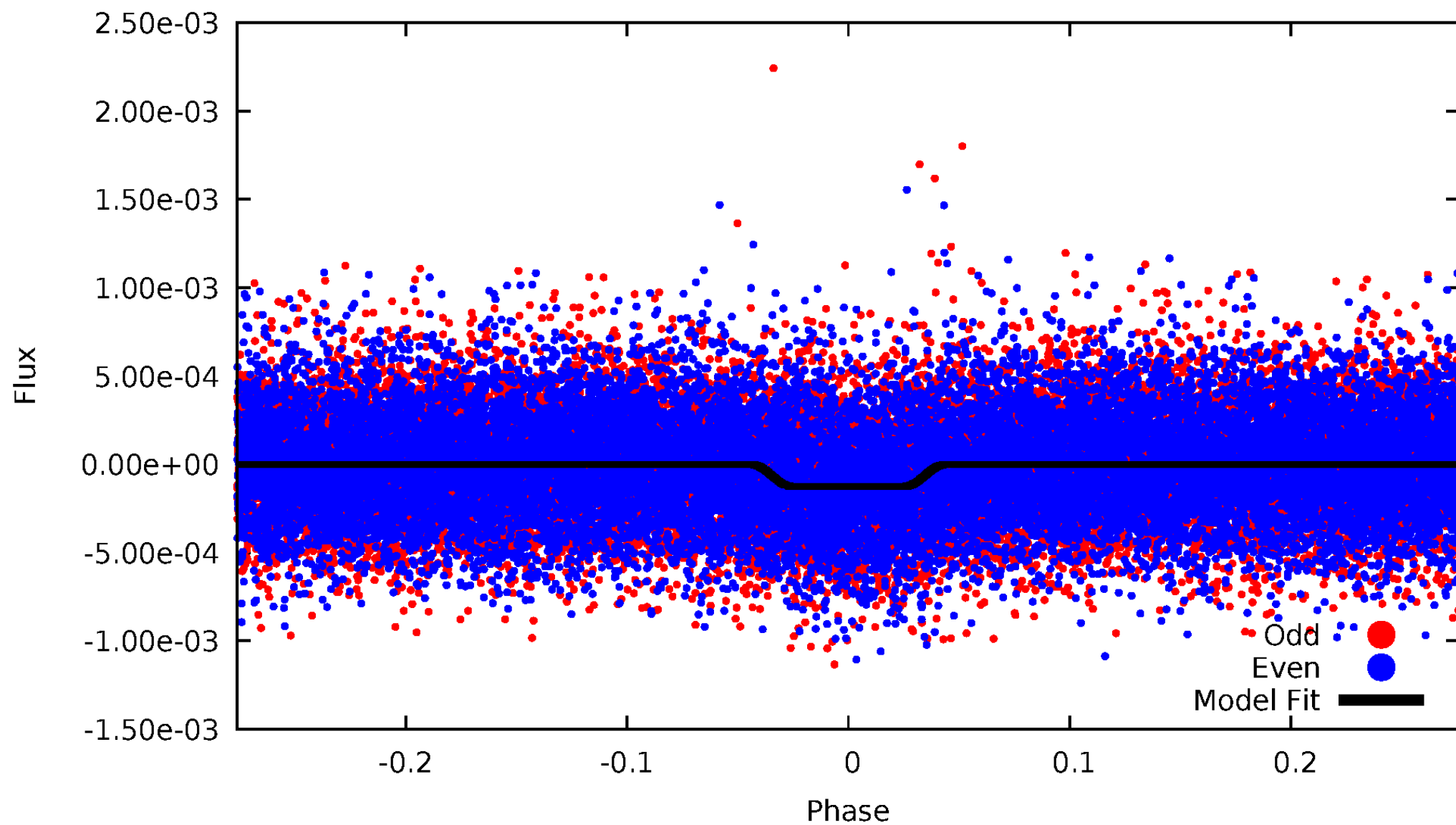
DV Odd/Even

TCE 005988031-01

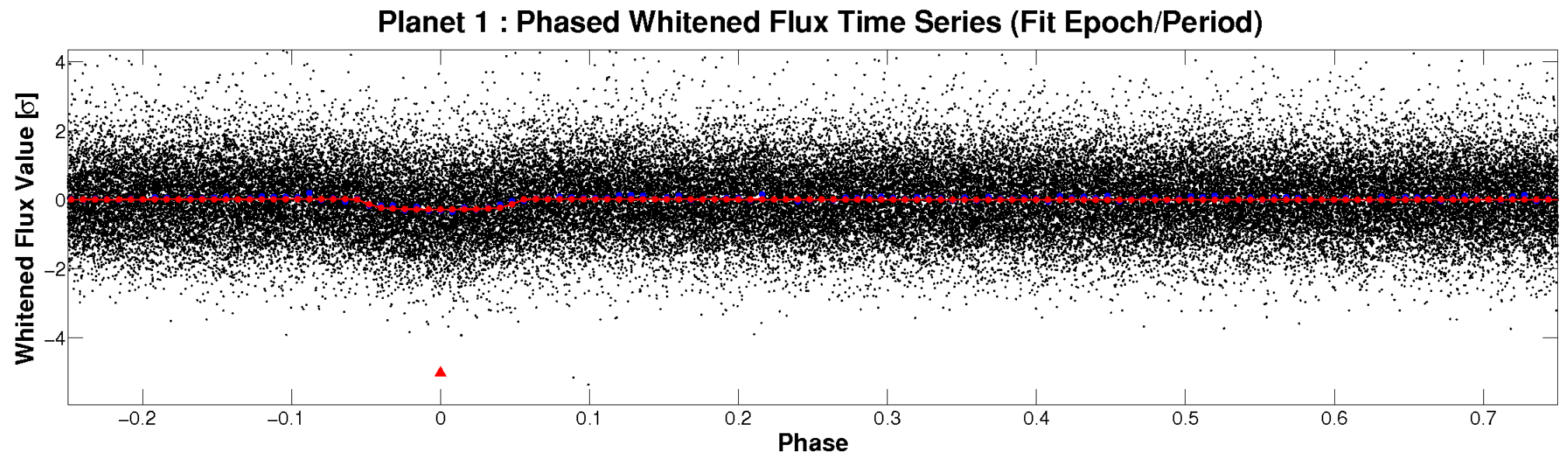
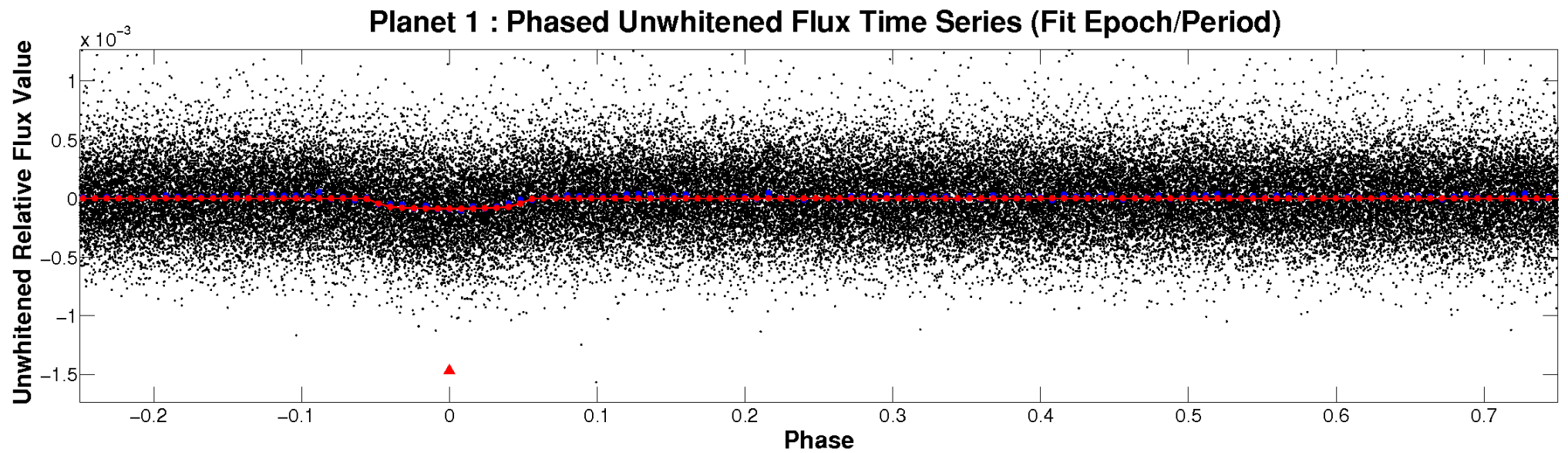


ALT Odd/Even

TCE 005988031-01

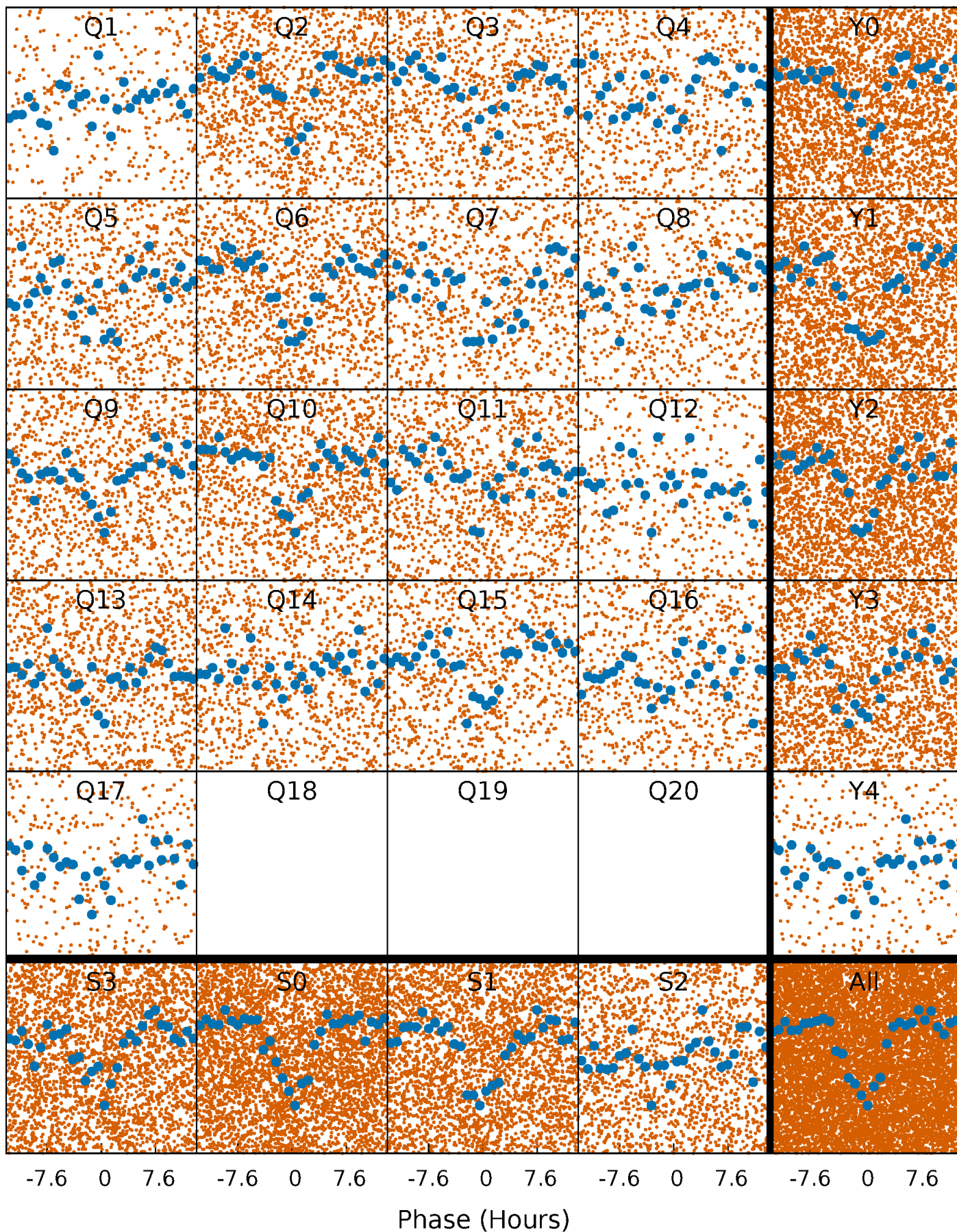


Non-Whitened Vs. Whitened Light Curve



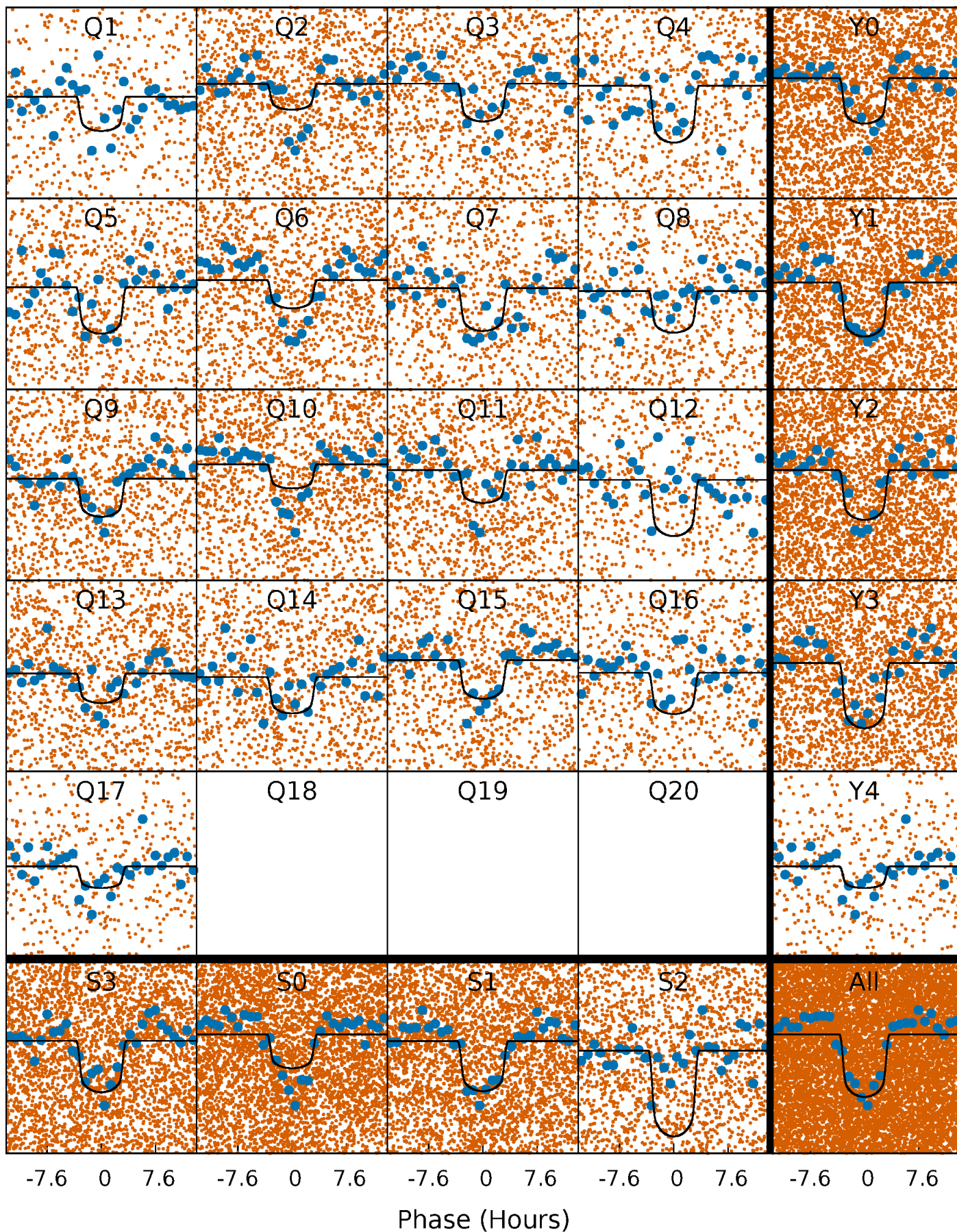
PDC Quarter-Phased Transit Curves

TCE 005988031-01 P= 2.555616 Days $T_0=131.919383$ (BKJD)



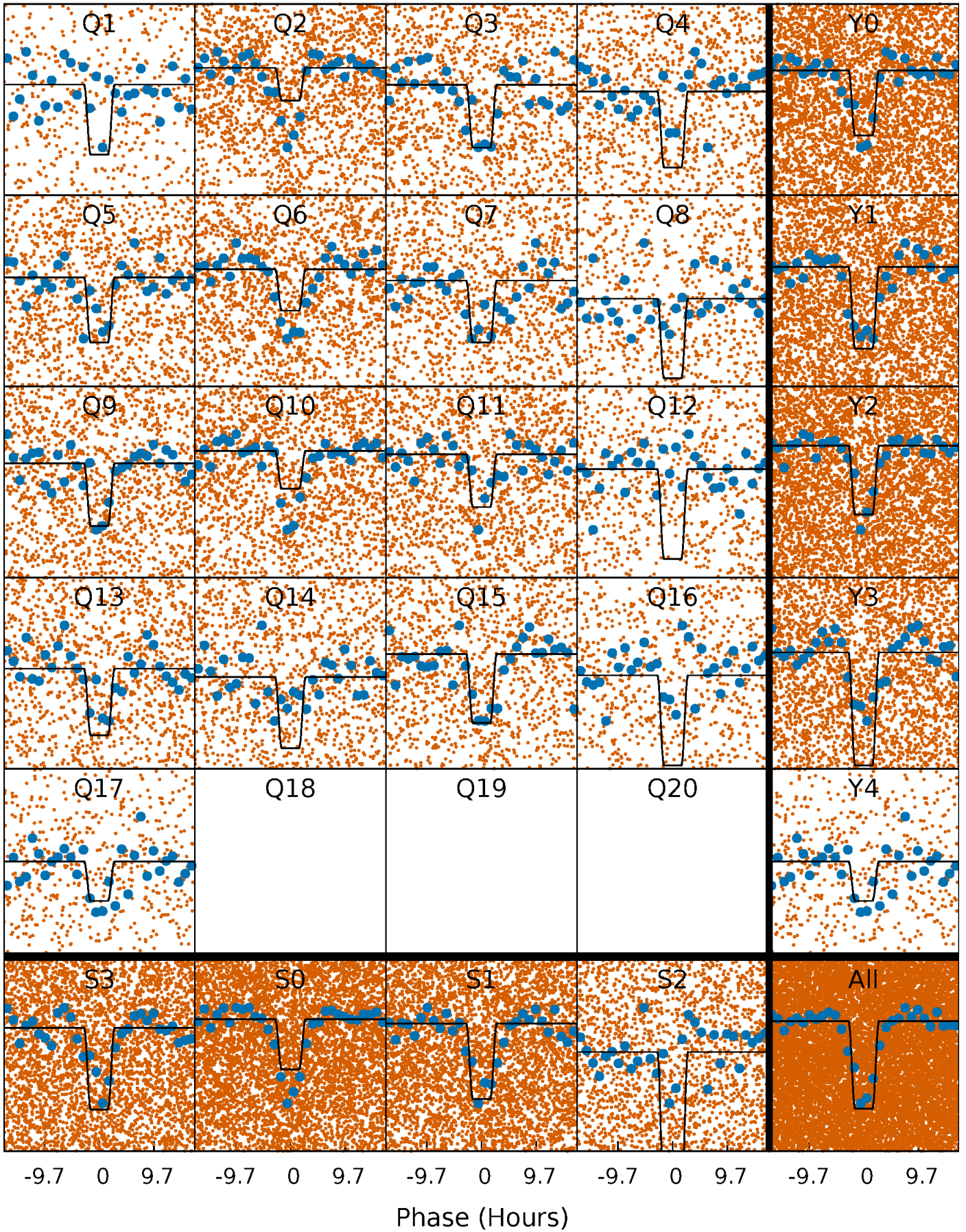
DV Quarter-Phased Transit Curves

TCE 005988031-01 P= 2.555616 Days $T_0=131.919383$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

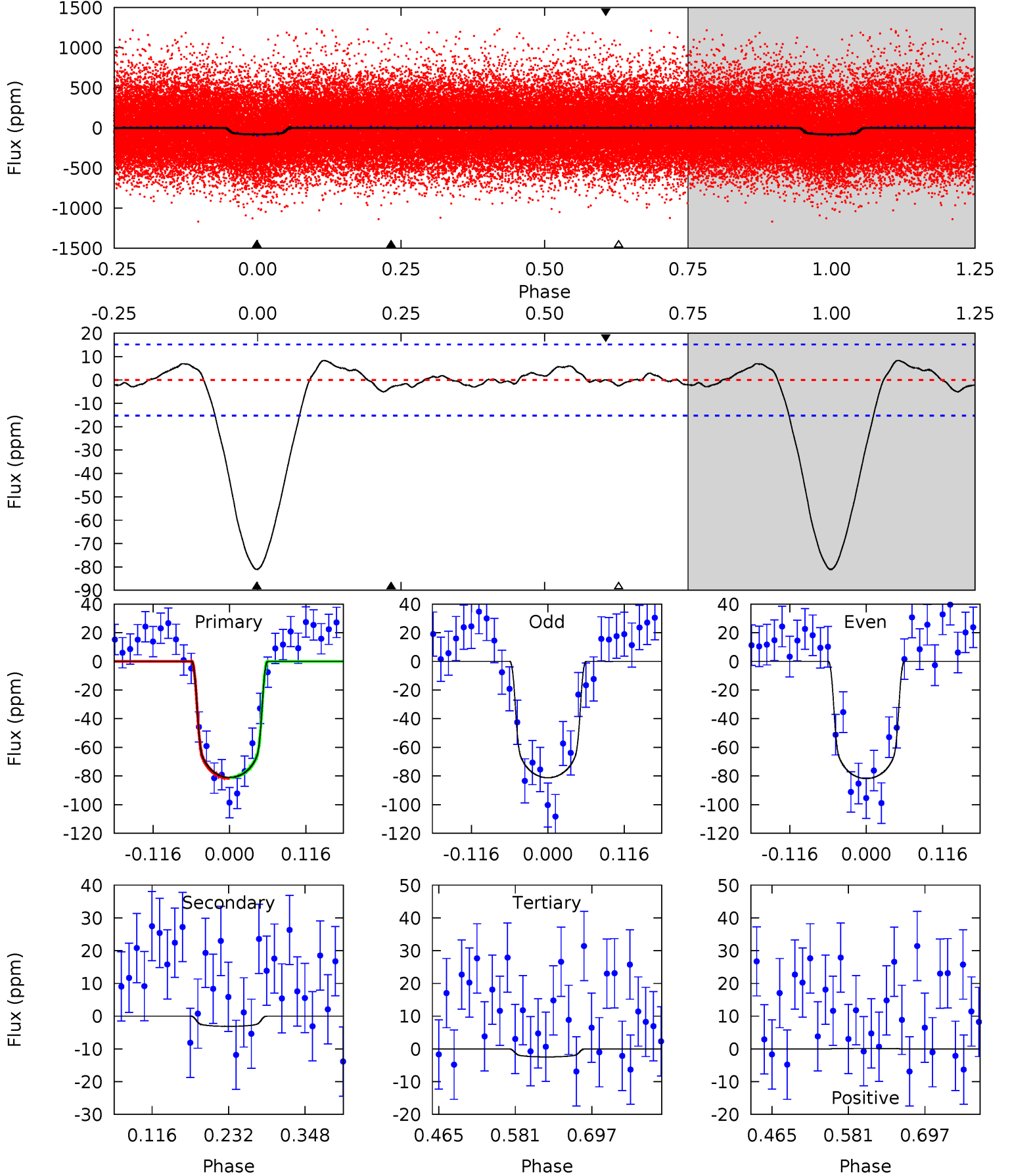
TCE 005988031-01 P= 2.555448 Days $T_0=131.957003$ (BKJD)



DV Model-Shift Uniqueness Test

005988031-01, P = 2.555616 Days, E = 129.363767 Days

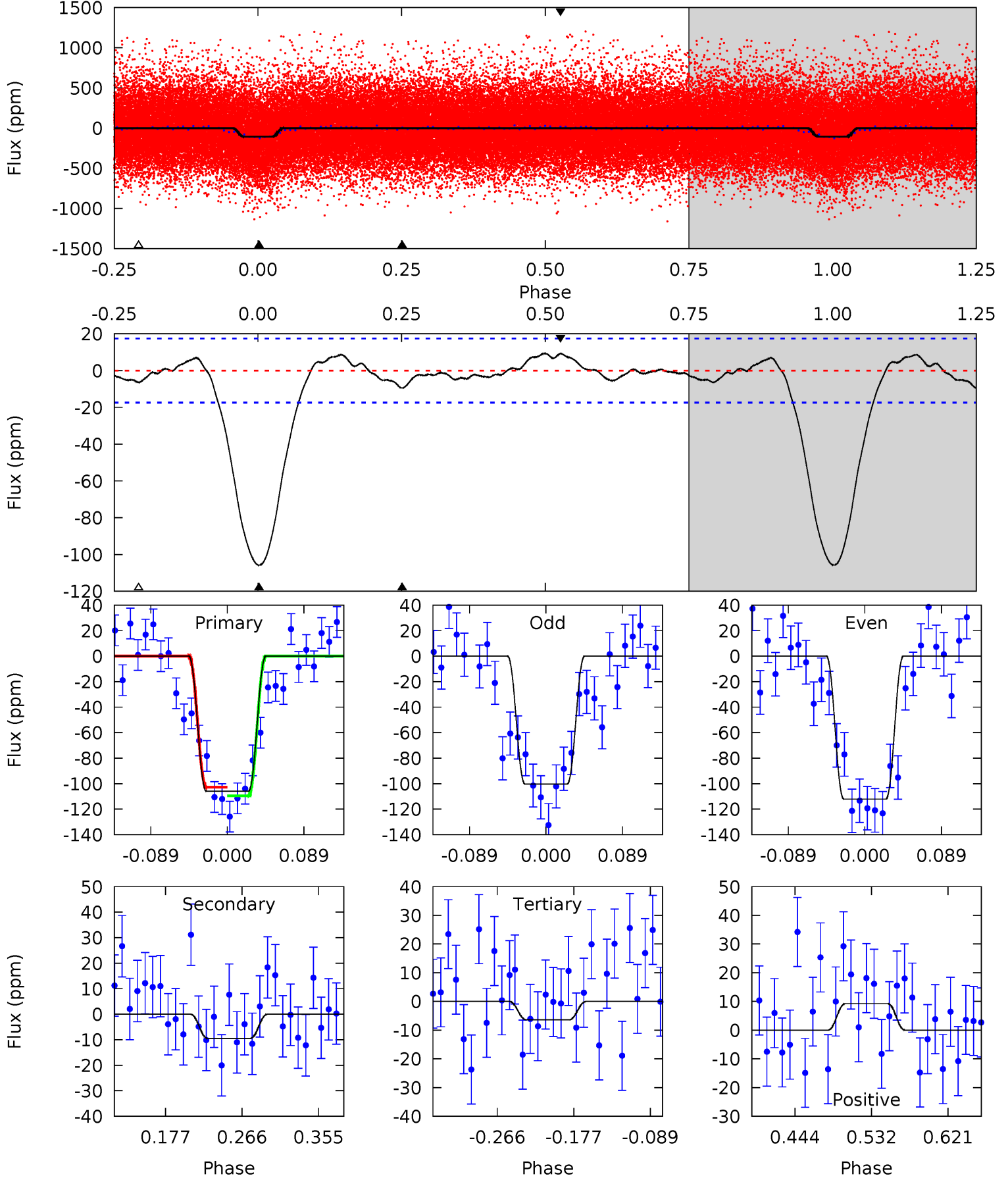
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	0.93	0.73	0.03	4.53	1.57	0.78	23.4	24.1	0.20	0.90	0.09	1.04	0.09	0.09



Alt Model-Shift Uniqueness Test

005988031-01, P = 2.555448 Days, E = 129.401555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	2.51	1.69	2.44	4.59	1.70	1.14	26.2	25.4	0.81	0.07	1.55	0.98	0.08	0.88



Stellar Parameters For KIC 005988031

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5948^{+161}_{-178}	$4.508^{+0.050}_{-0.200}$	$-0.260^{+0.300}_{-0.300}$	$0.901^{+0.271}_{-0.090}$	$0.954^{+0.118}_{-0.107}$	$1.838^{+0.498}_{-0.940}$
	+3%/-3%	+1%/-4%	+115%/-115%	+30%/-10%	+12%/-11%	+27%/-51%
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 005988031-01 / KOI 1047.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 3	$1.09^{+0.18}_{-0.14}$	1879^{+126}_{-86}	2990^{+385}_{-5500}	$1.808^{+1.978}_{-1.839}$
Alt.	-10 ± 4	$1.15^{+0.22}_{-0.13}$	1870^{+133}_{-88}	3536^{+263}_{-295}	$4.862^{+2.908}_{-1.998}$

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 $A_{obs} \gg 1.0$

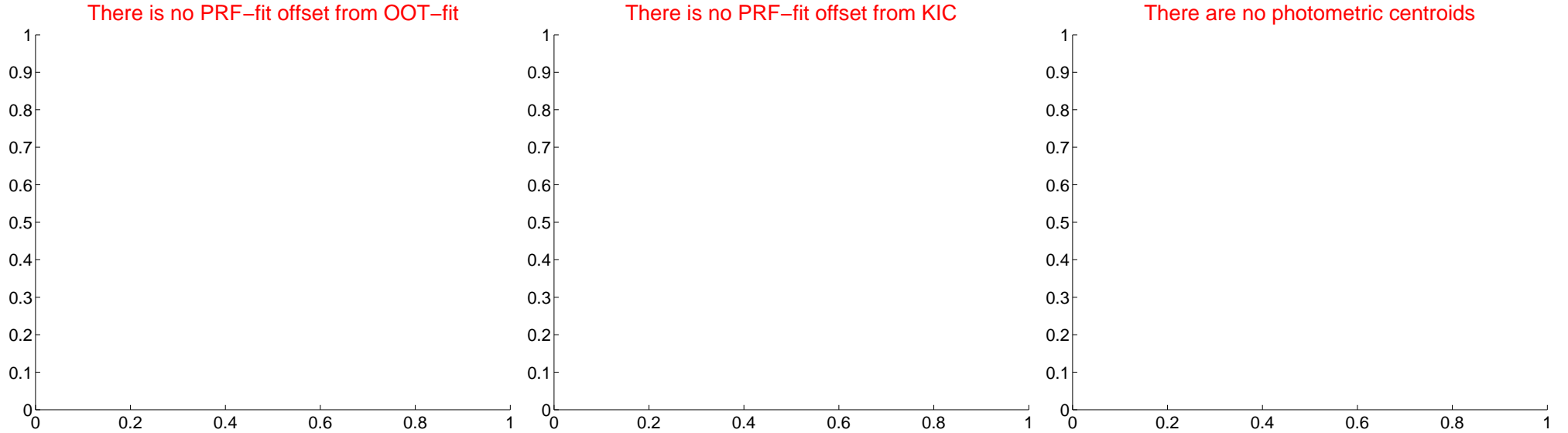
DV Centroid Data

Supplemental centroid analysis for 005988031-01. Kepler magnitude: 14.55. Transit SNR 19.73

There are 0 quarters with good PRF difference image offsets

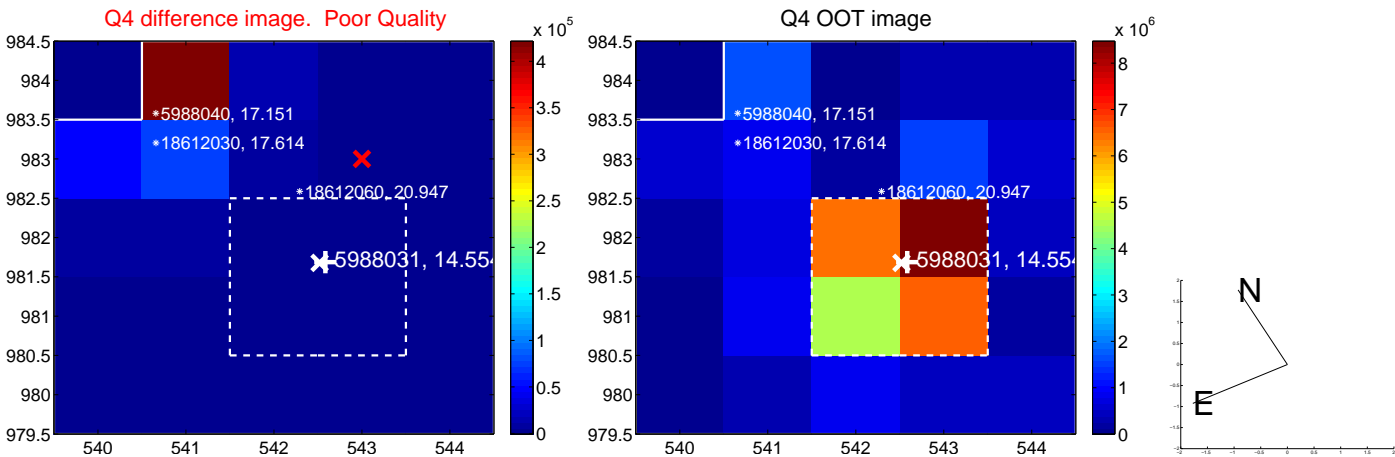
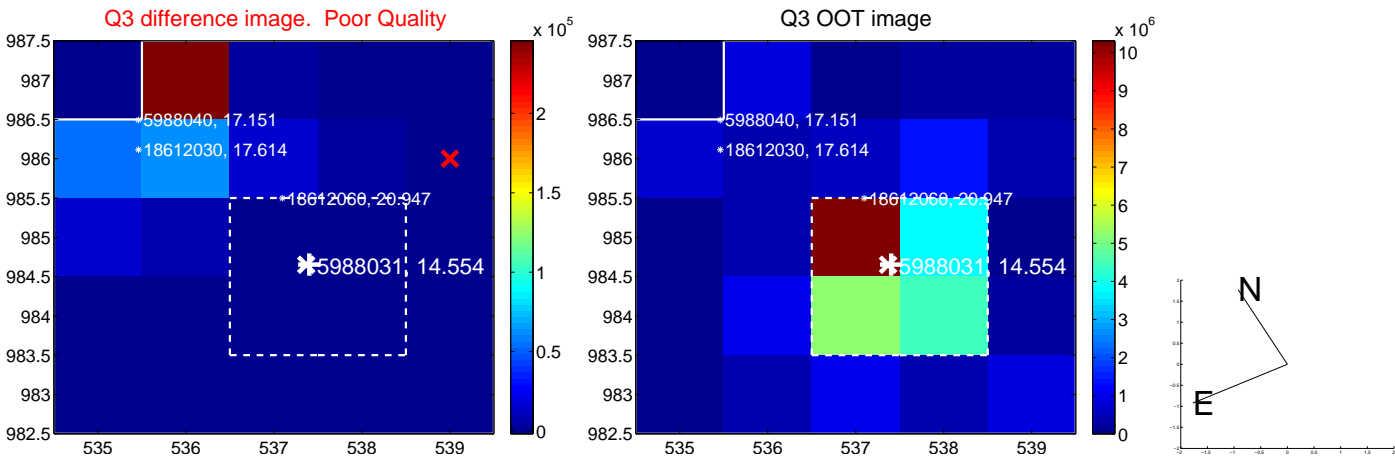
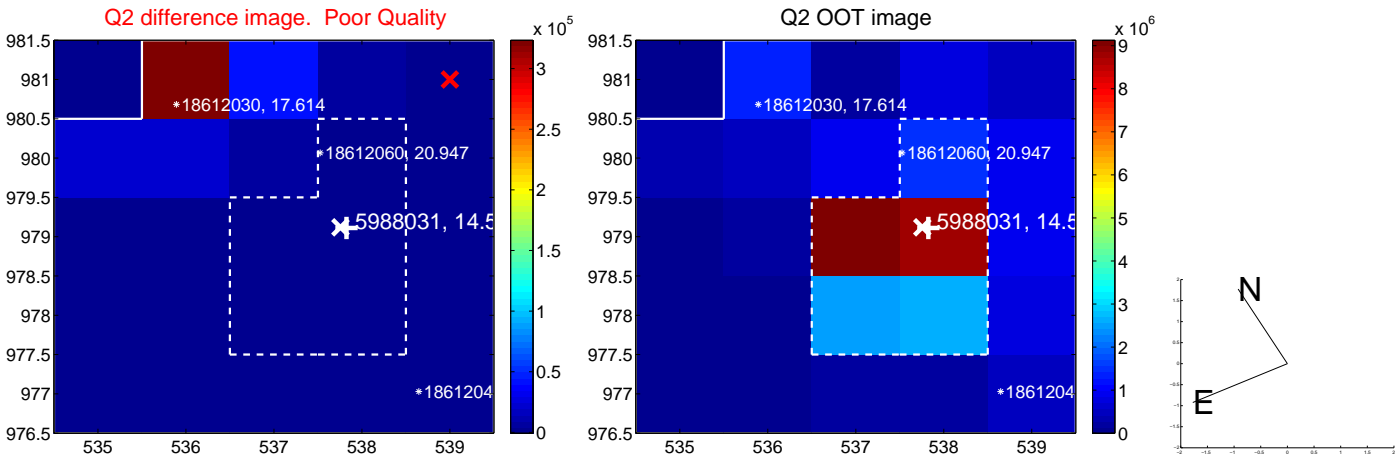
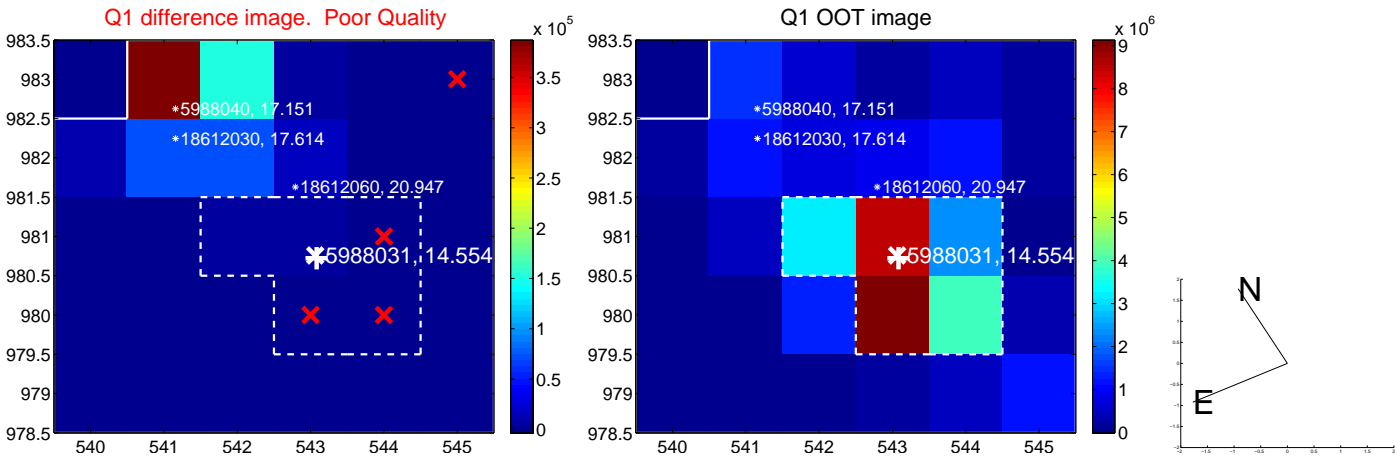
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

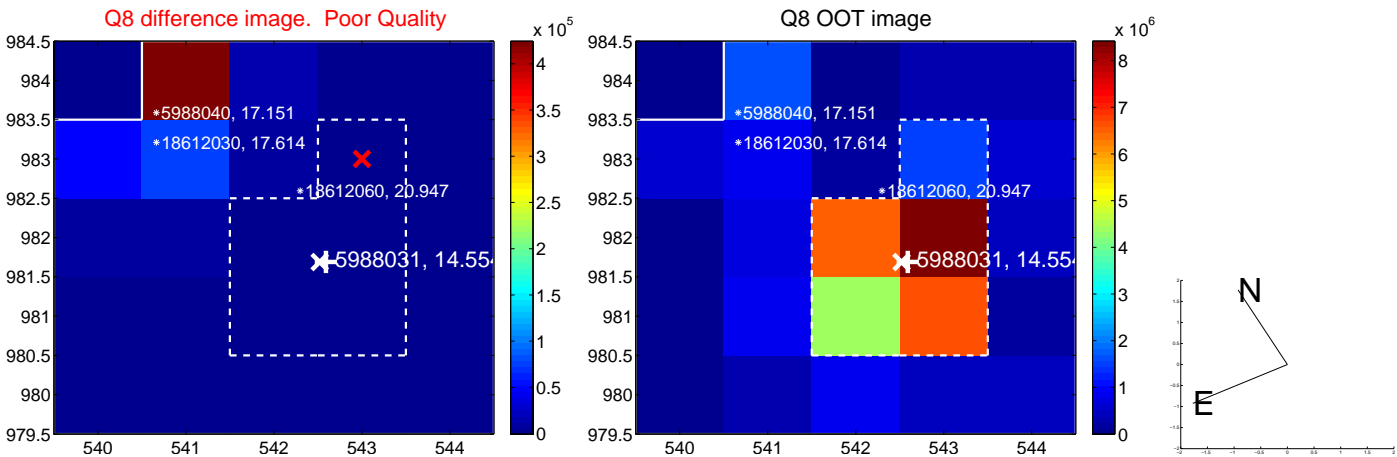
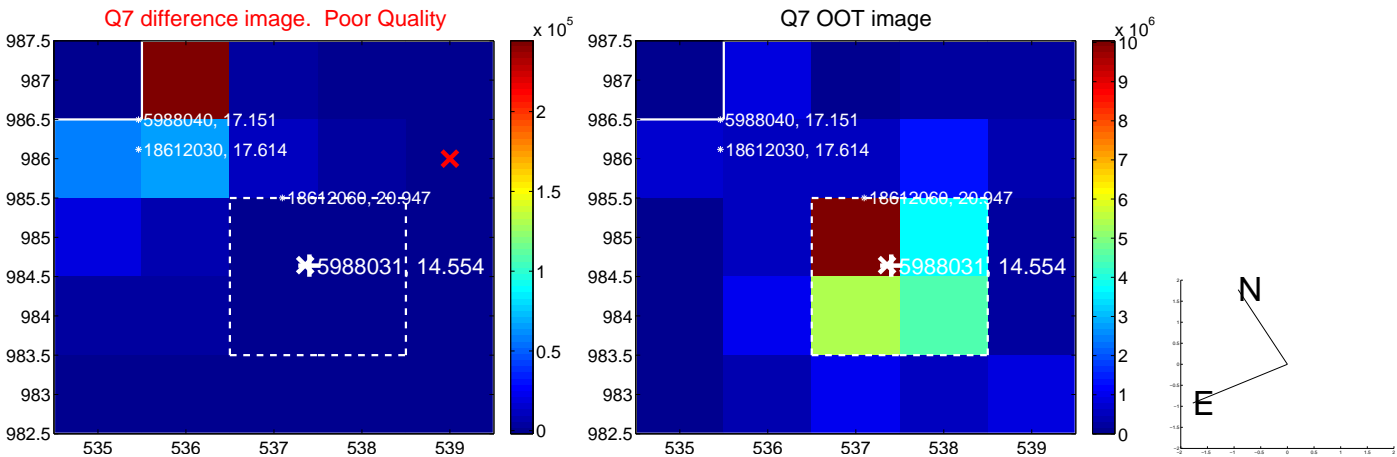
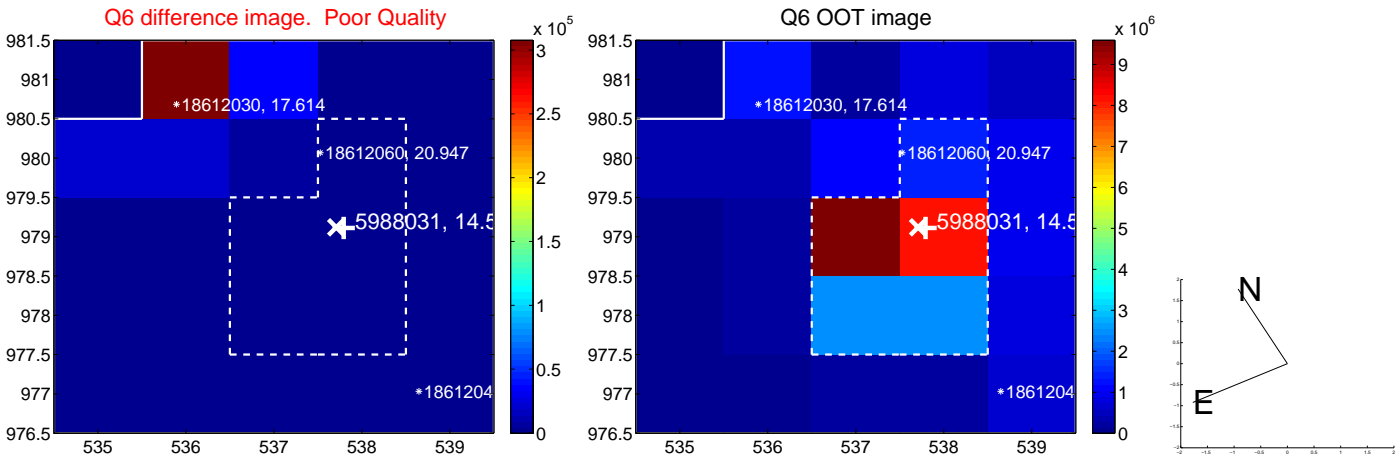
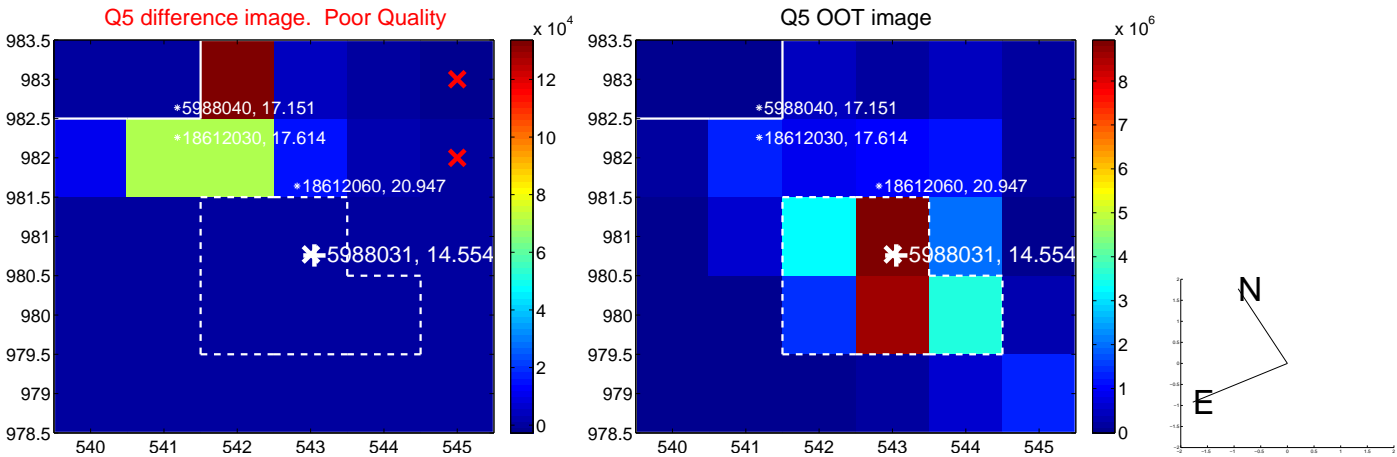


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

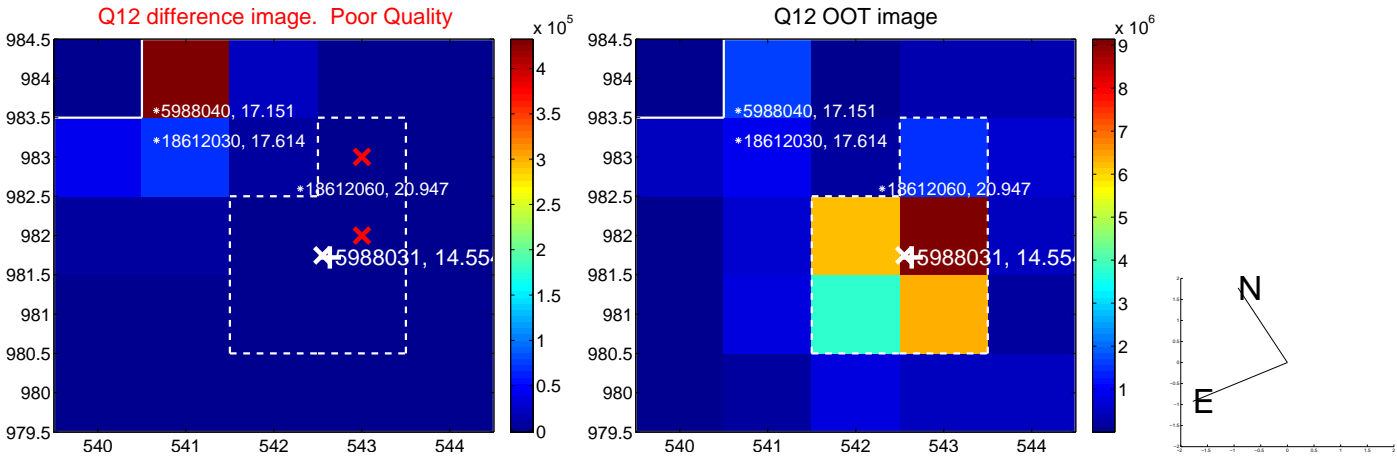
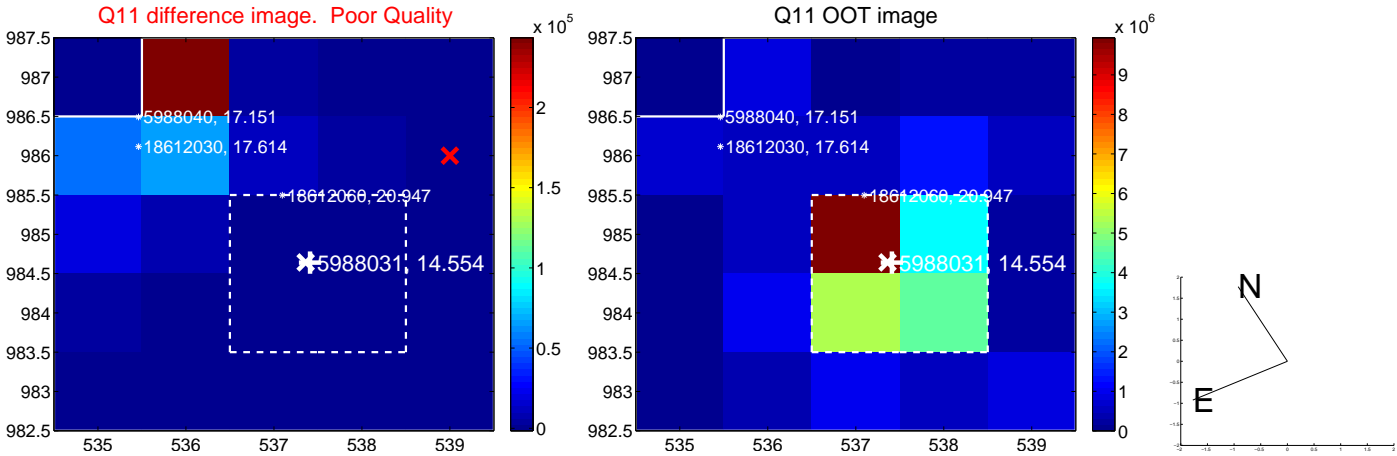
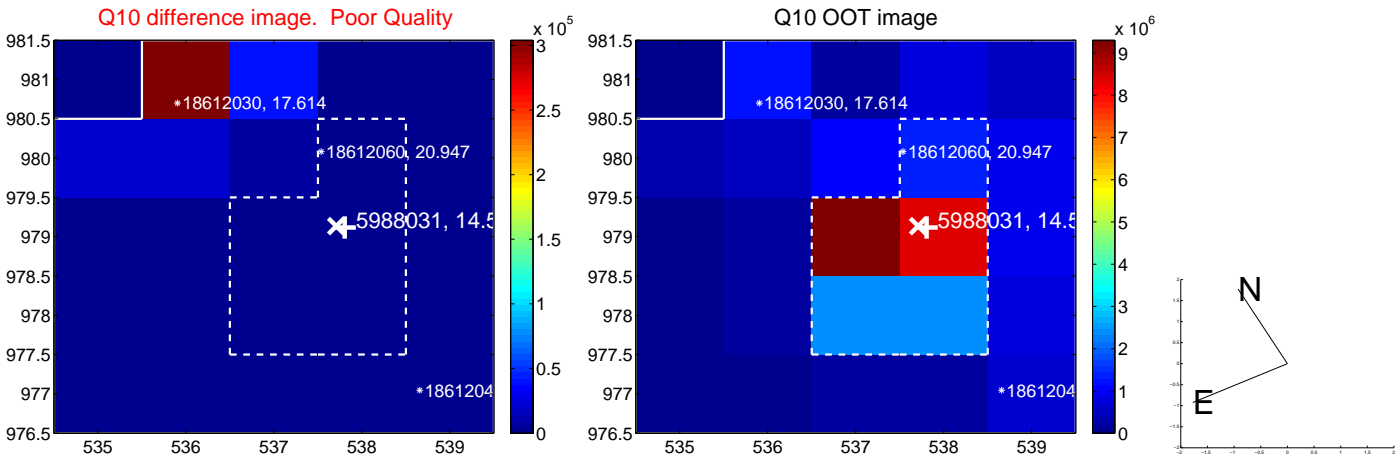
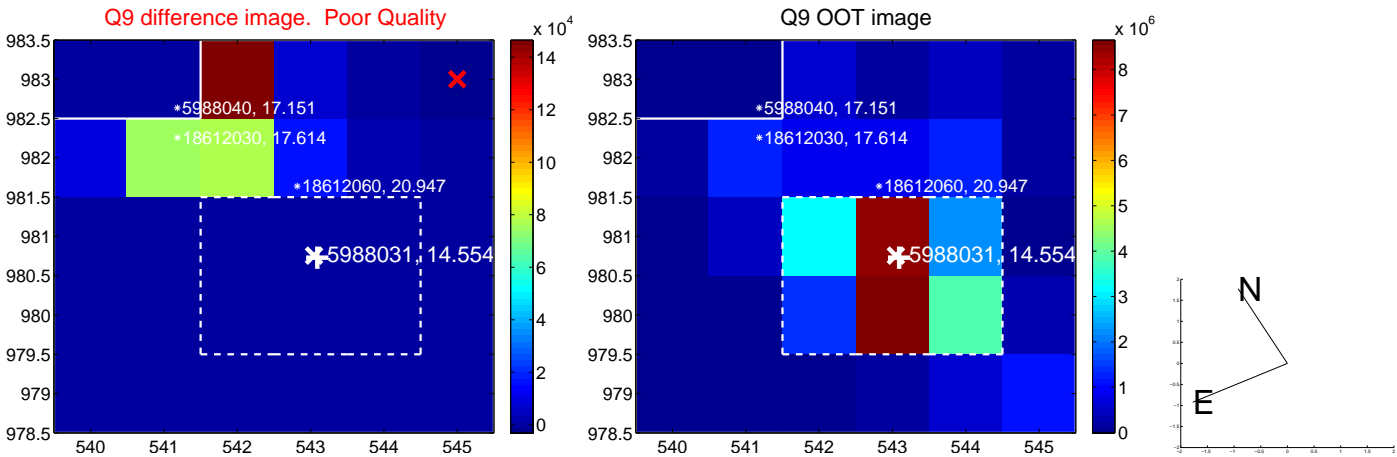
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



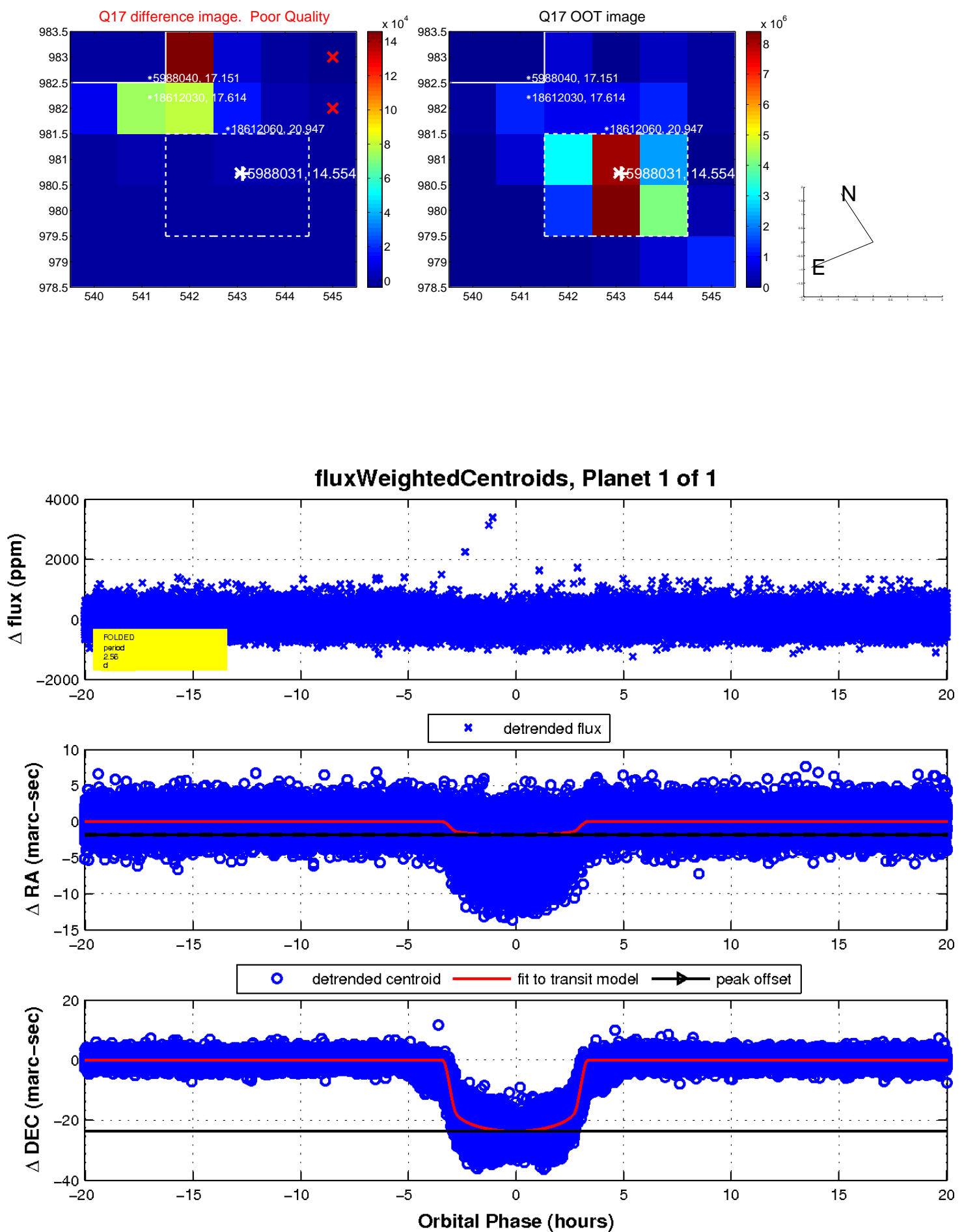
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

