

KIC 005126182

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})
005126182-01	OBS	4428.01	13.003349	132.009339	205.9	3.446	11.5	12.0	0.80	5796	1.32	60.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005126182-01	OBS	PC	0.91	0	0	0	0	CENT_KIC_POS

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.

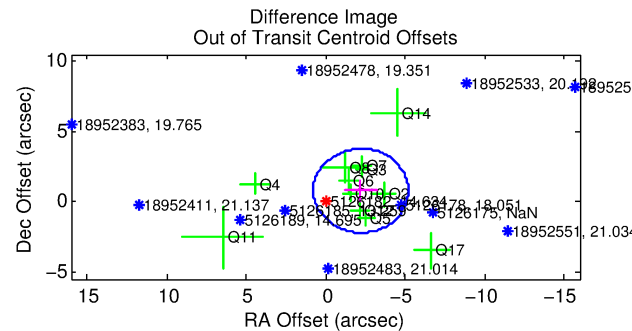
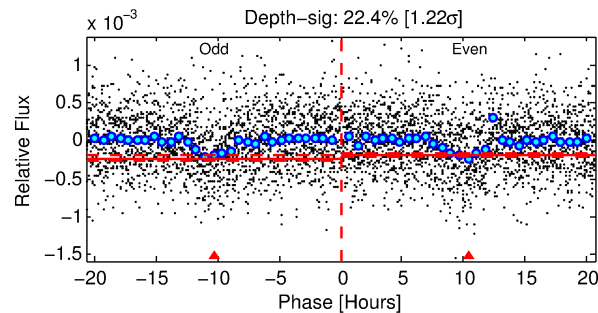
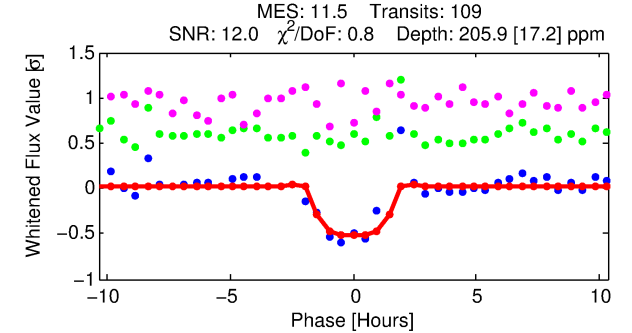
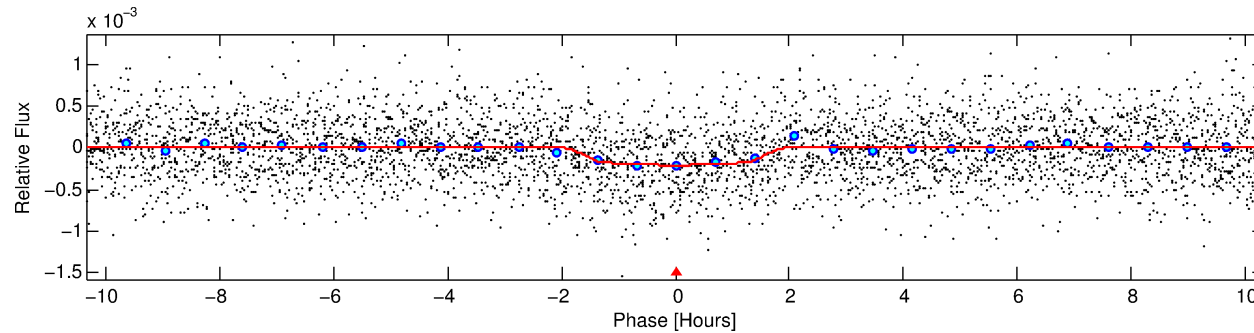
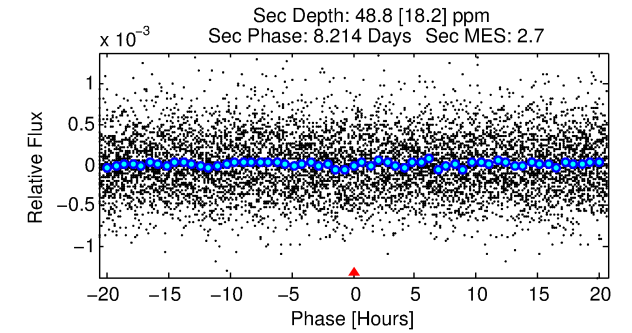
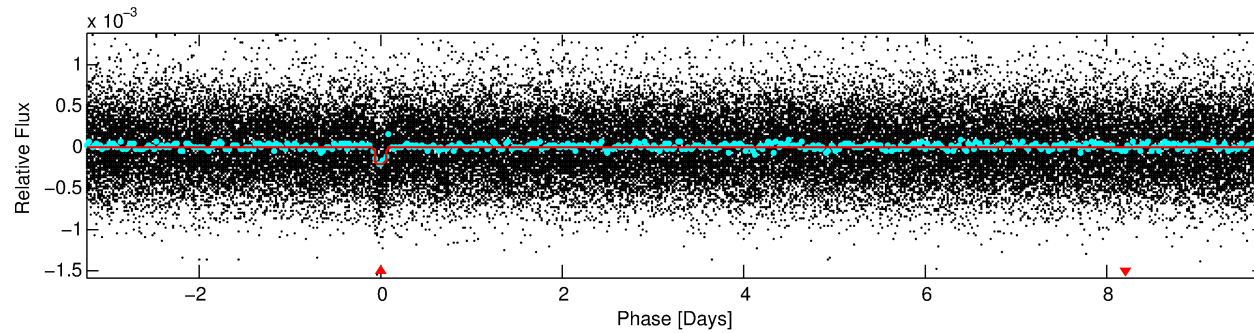
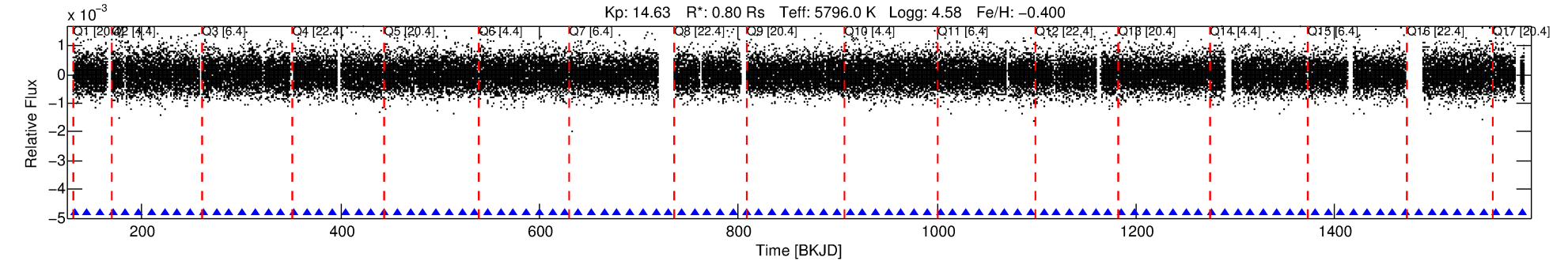
Ephemeris Match Information For 005126182-01

No Significant Match Found

DV One-Page Summary

KIC: 5126182 Candidate: 1 of 1 Period: 13.003 d

KOI: K04428.01 Corr: 0.880



DV Fit Results:

Period = 13.00335 [0.00010] d
Epoch = 132.0093 [0.0060] BKJD
Rp/R* = 0.0151 [0.0085]
a/R* = 15.47 [43.05]
b = 0.86 [0.84]
Seff = 60.26 [20.90]
Teff = 710 [62] K
Rp = 1.32 [0.83] Re
a = 0.1036 [0.0235] AU
Ag = 166.41 [205.83] [0.80σ]
Teffp = 3945 [1183] K [2.73σ]

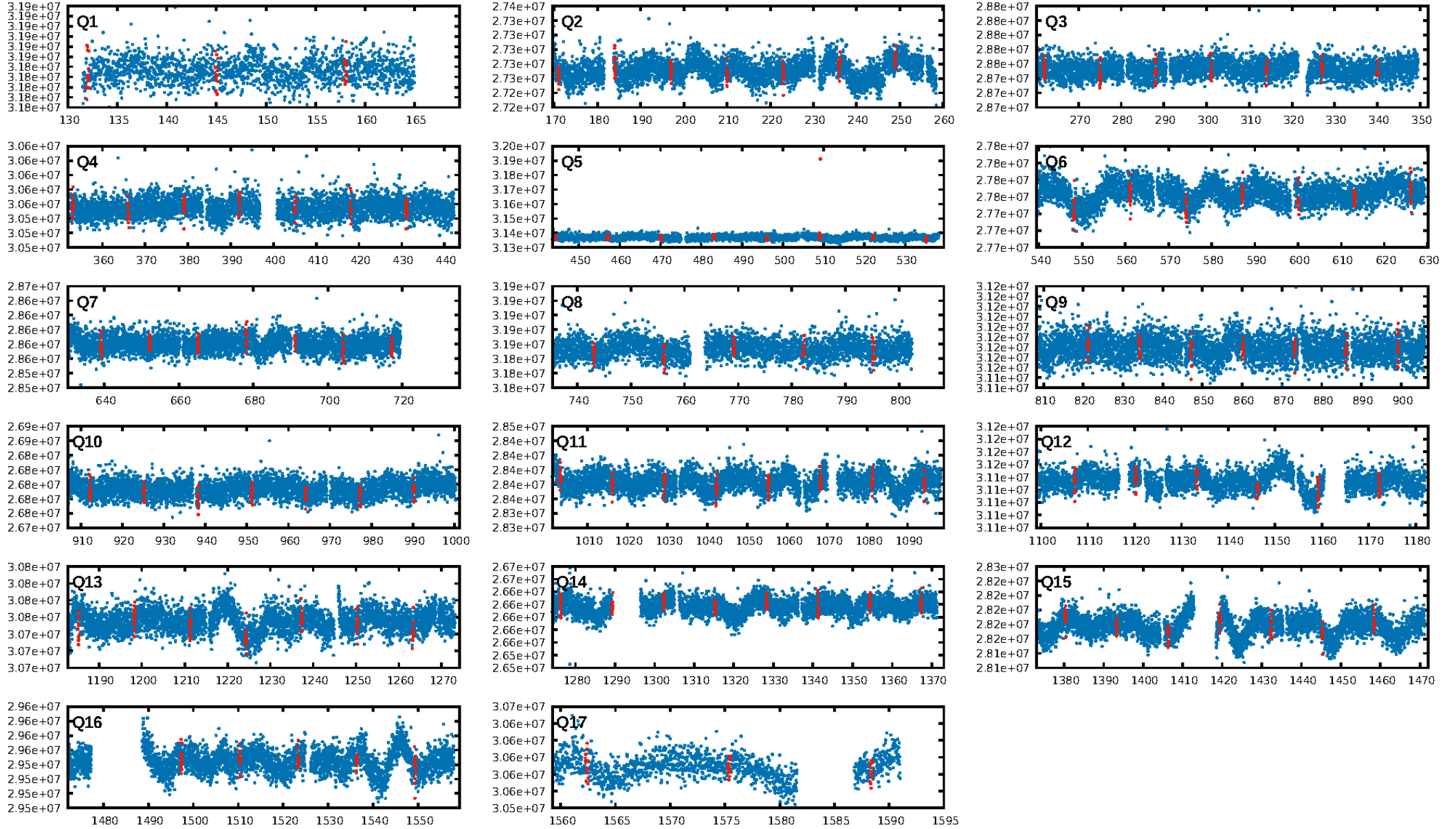
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.12e-29
RollingBand-fgt: 1.00 [103/103]
GhostDiagnostic-chr: -9.359
Centroid-sig: 0.1%
Centroid-so: 1.514 arcsec [2.21σ]
OotOffset-rm: 2.349 arcsec [2.36σ]
KicOffset-rm: 0.797 arcsec [0.85σ]
OotOffset-st: 4/3/3/2 [12]
KicOffset-st: 4/3/3/2 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 1.00 [17/17]

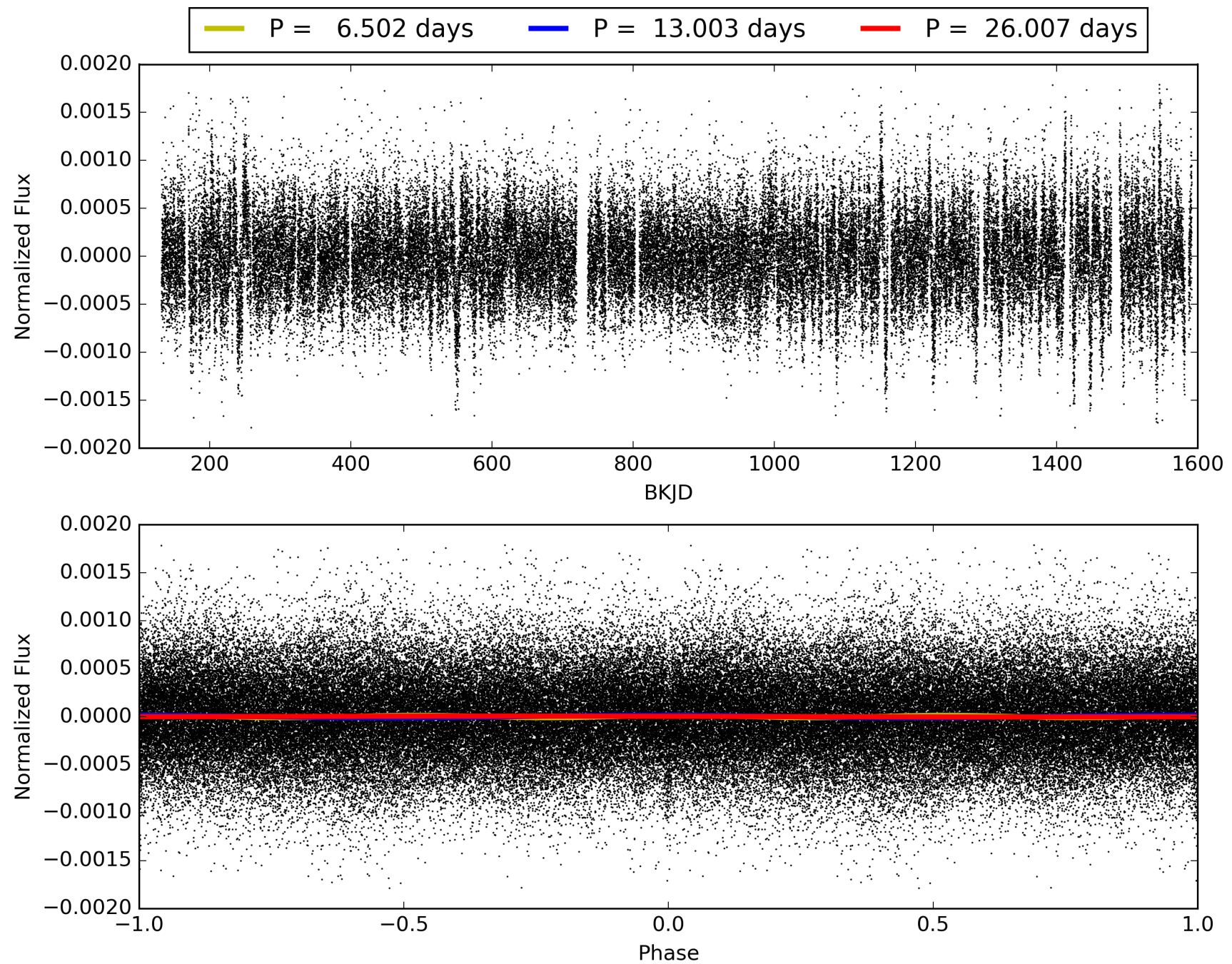
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:18:18 Z

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

TCE 005126182-01, PDC Light Curves

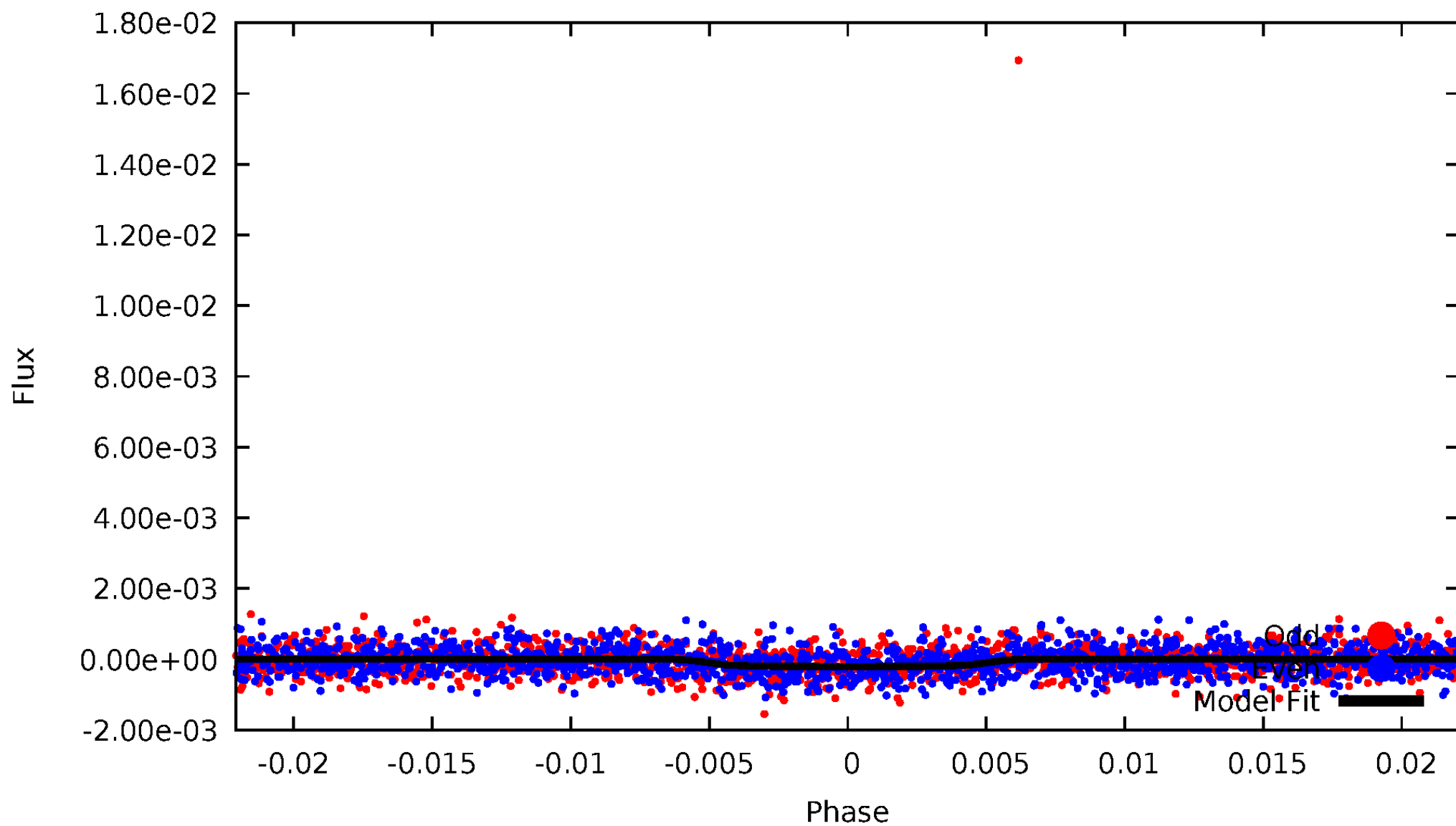


TCE 005126182-01



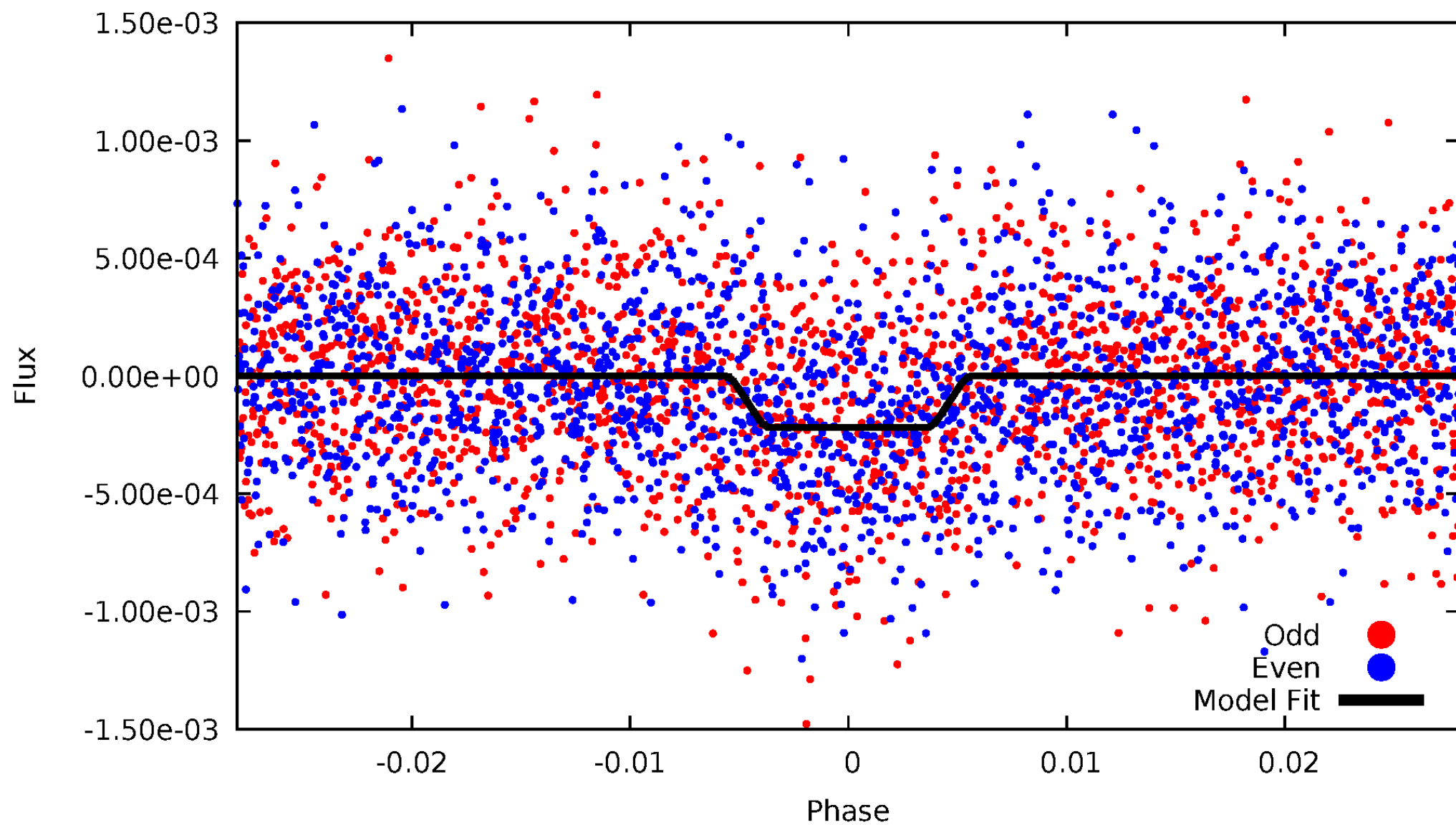
DV Odd/Even

TCE 005126182-01



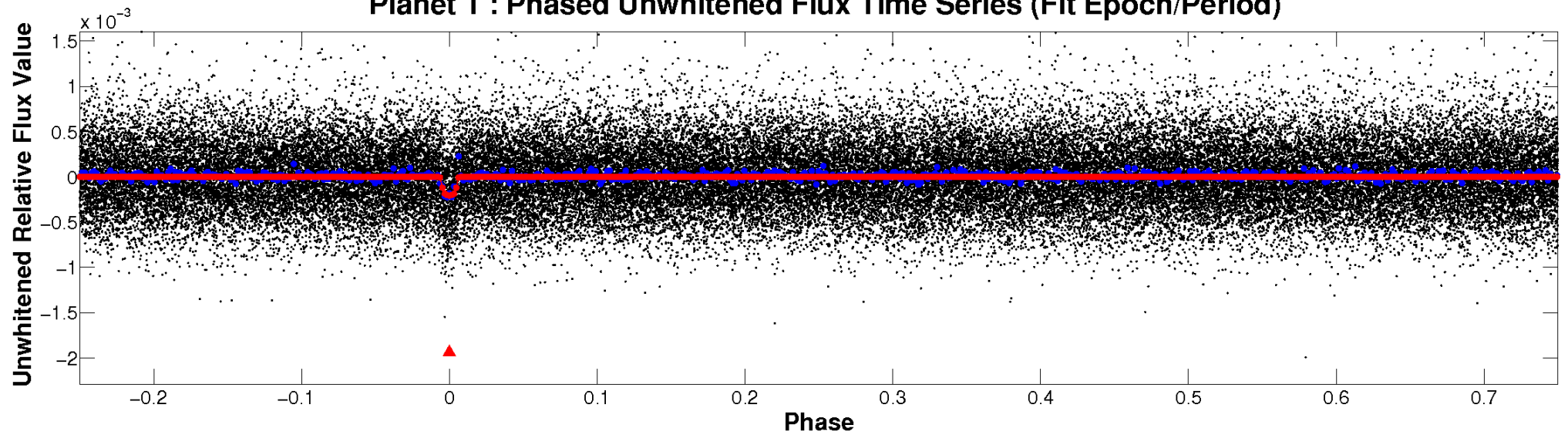
ALT Odd/Even

TCE 005126182-01

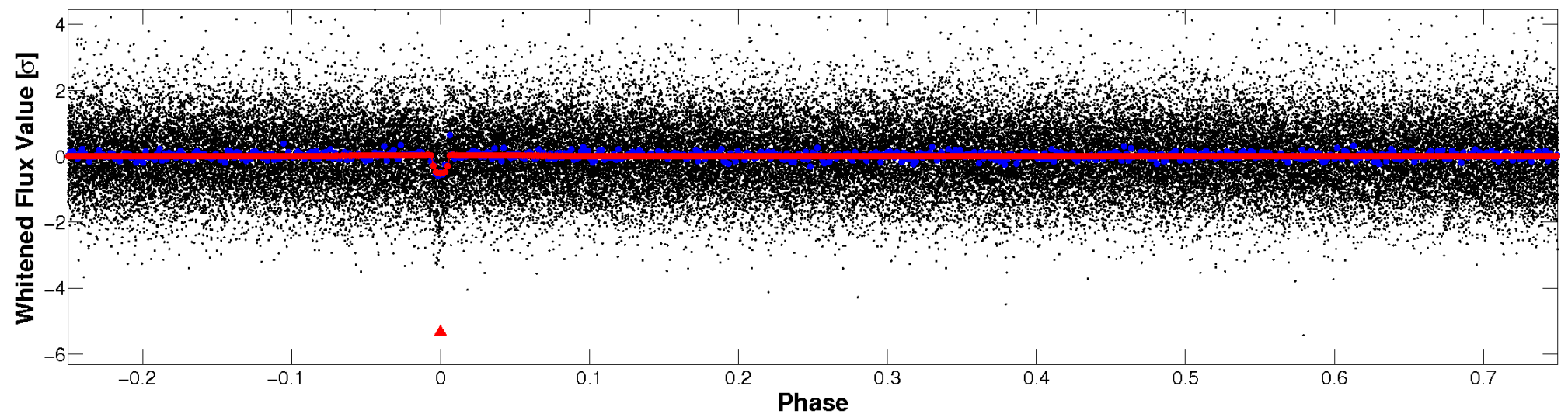


Non-Whitened Vs. Whitened Light Curve

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

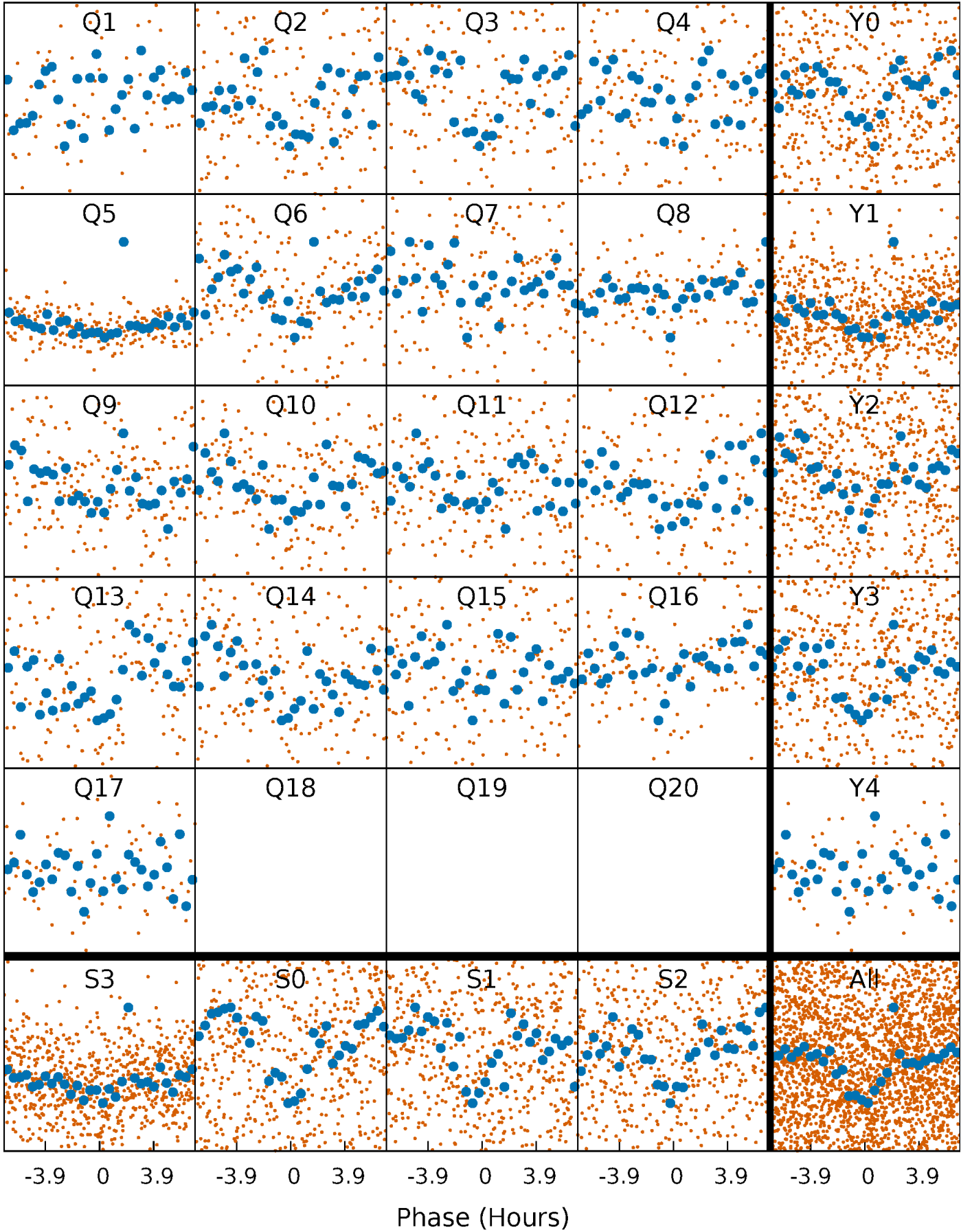


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



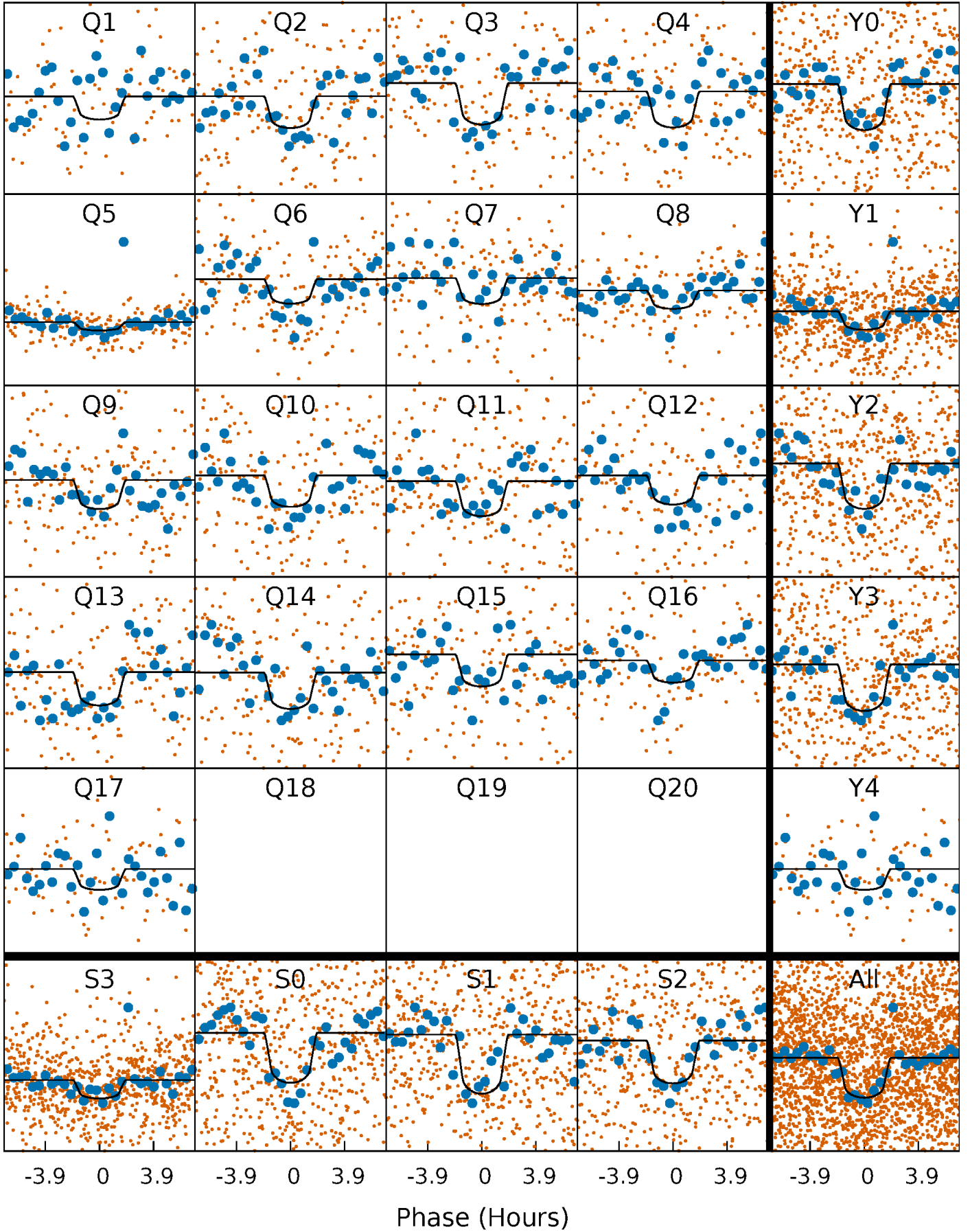
PDC Quarter-Phased Transit Curves

TCE 005126182-01 P= 13.003349 Days $T_0=132.009339$ (BKJD)



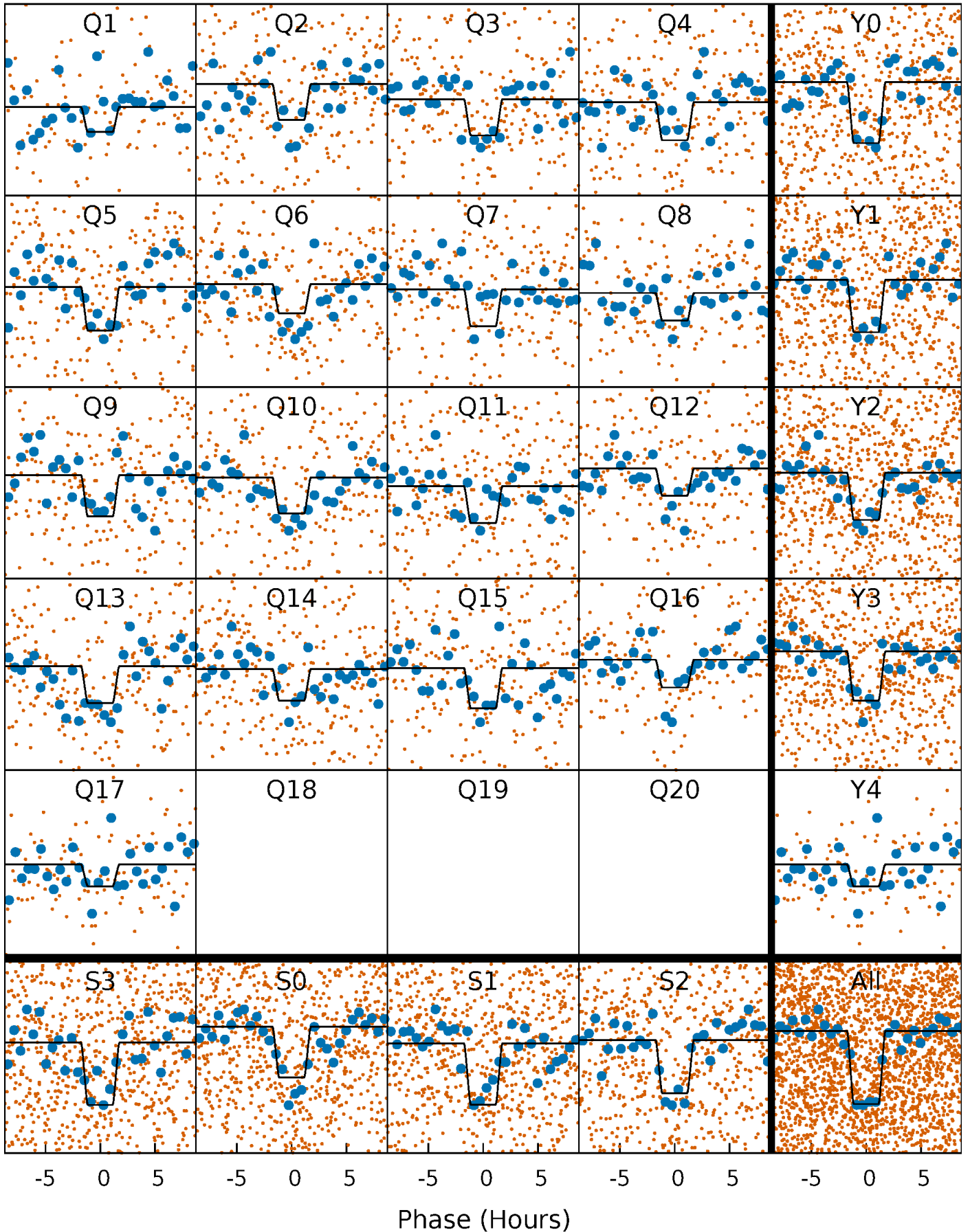
DV Quarter-Phased Transit Curves

TCE 005126182-01 P= 13.003349 Days $T_0=132.009339$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

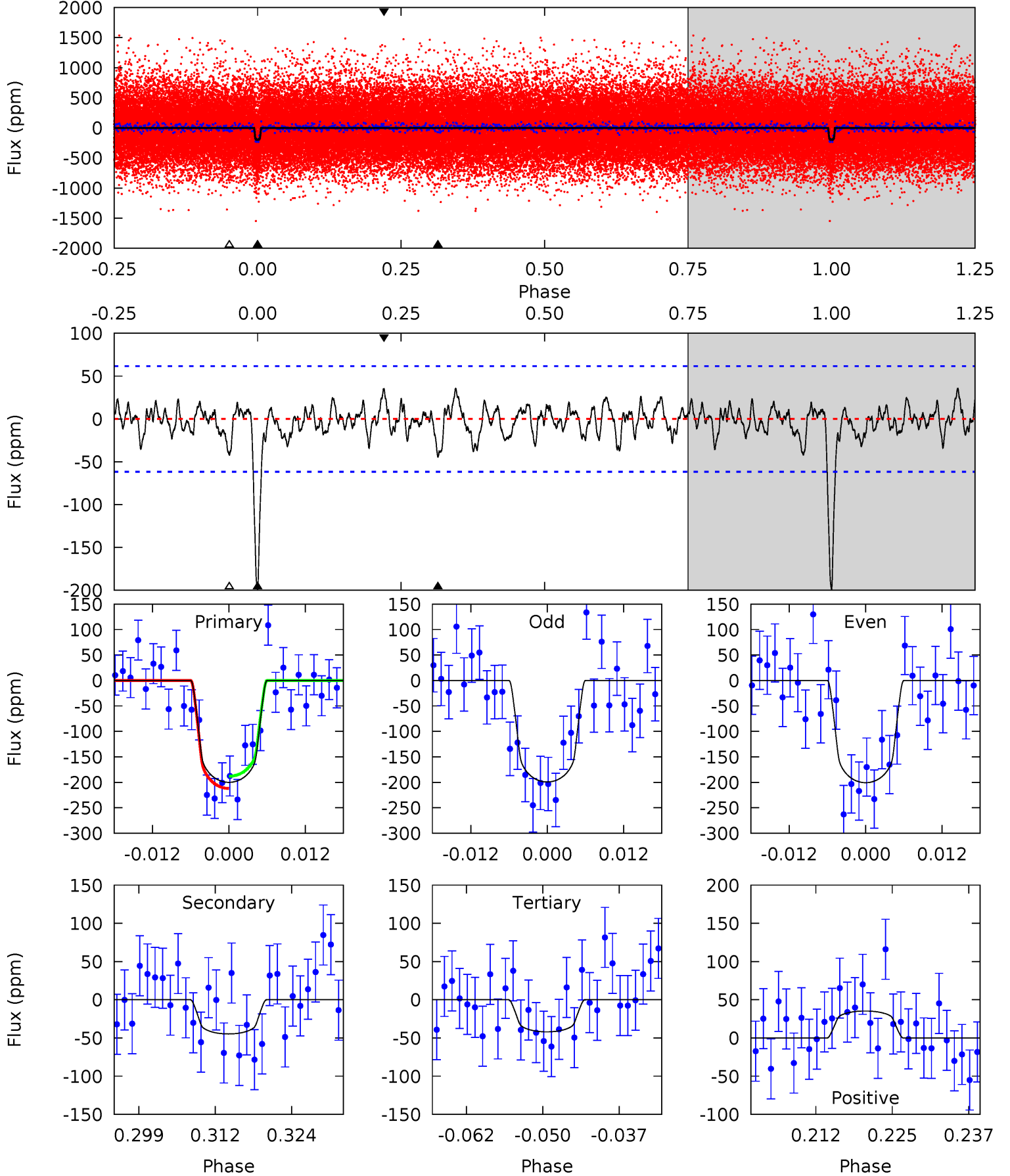
TCE 005126182-01 P= 13.003256 Days $T_0=132.005321$ (BKJD)



DV Model-Shift Uniqueness Test

005126182-01, $P = 13.003349$ Days, $E = 119.005990$ Days

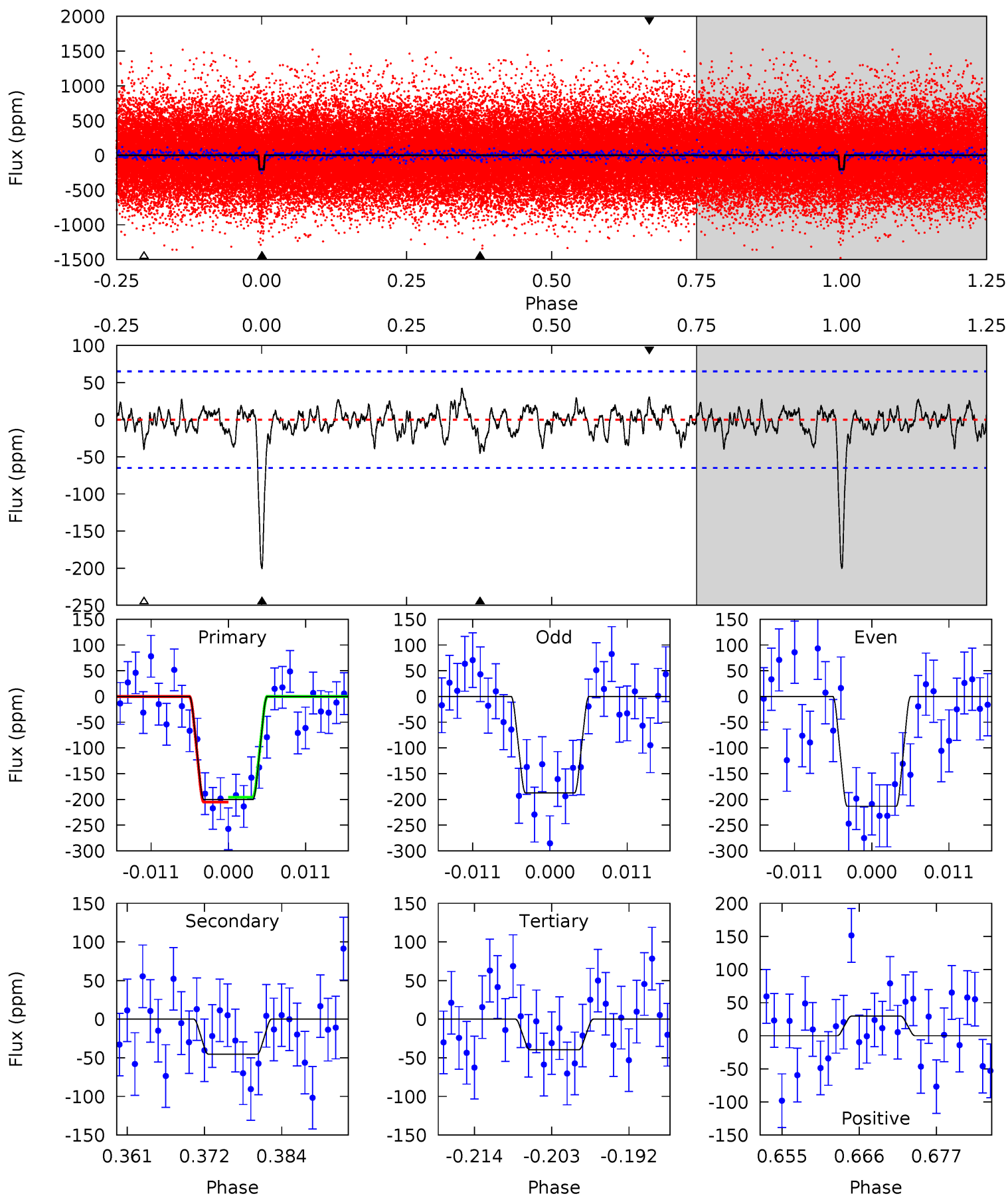
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	3.62	3.40	2.85	4.98	2.50	1.12	12.8	13.3	0.22	0.77	0.06	1.05	0.15	0.97



Alt Model-Shift Uniqueness Test

005126182-01, $P = 13.003256$ Days, $E = 119.002065$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	3.48	3.04	2.28	5.00	2.53	1.05	12.4	13.1	0.44	1.20	0.99	1.09	0.17	0.36



Stellar Parameters For KIC 005126182

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5796^{+155}_{-173}	$4.575^{+0.044}_{-0.176}$	$-0.400^{+0.300}_{-0.300}$	$0.800^{+0.218}_{-0.068}$	$0.882^{+0.096}_{-0.096}$	$2.429^{+0.431}_{-1.107}$
	+3%/-3%	+1%/-4%	+75%/-75%	+27%/-8%	+11%/-11%	+18%/-46%
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 005126182-01 / KOI 4428.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 12	$1.40^{+0.73}_{-0.68}$	1013^{+56}_{-46}	4085^{+1316}_{-568}	129^{+387}_{-77}
Alt.	-45 ± 13	$1.43^{+0.76}_{-0.73}$	1009^{+63}_{-43}	4070^{+1288}_{-596}	129^{+426}_{-79}

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 $A_{\text{obs}} \gg 1.0$

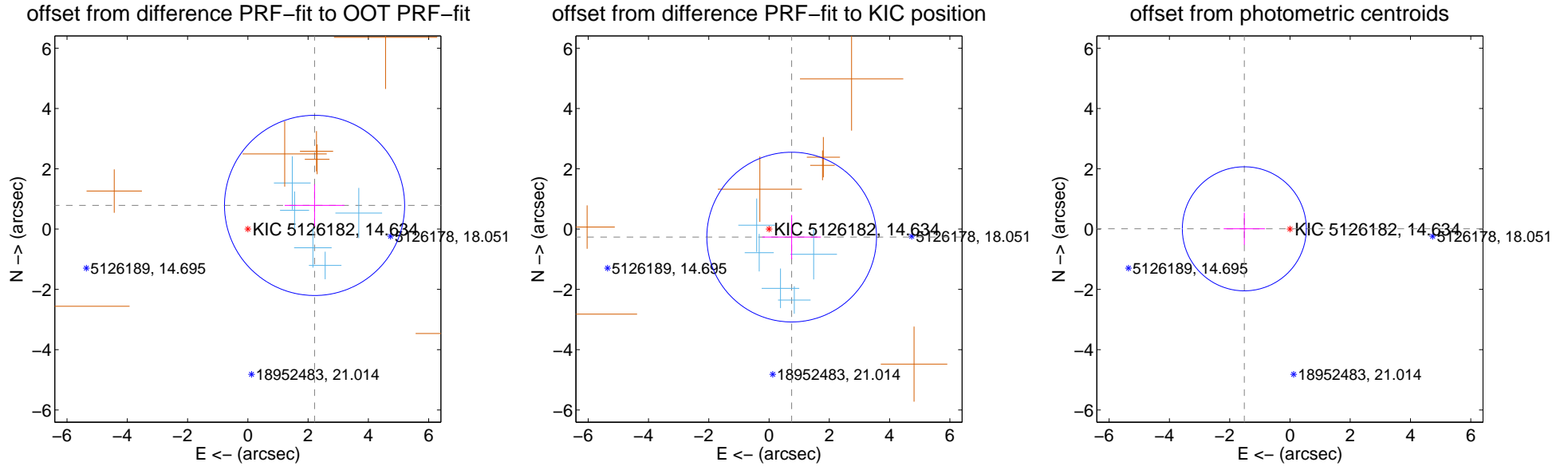
DV Centroid Data

Supplemental centroid analysis for 005126182-01. Kepler magnitude: 14.63. Transit SNR 11.97

There are 5 quarters with good PRF difference image offsets

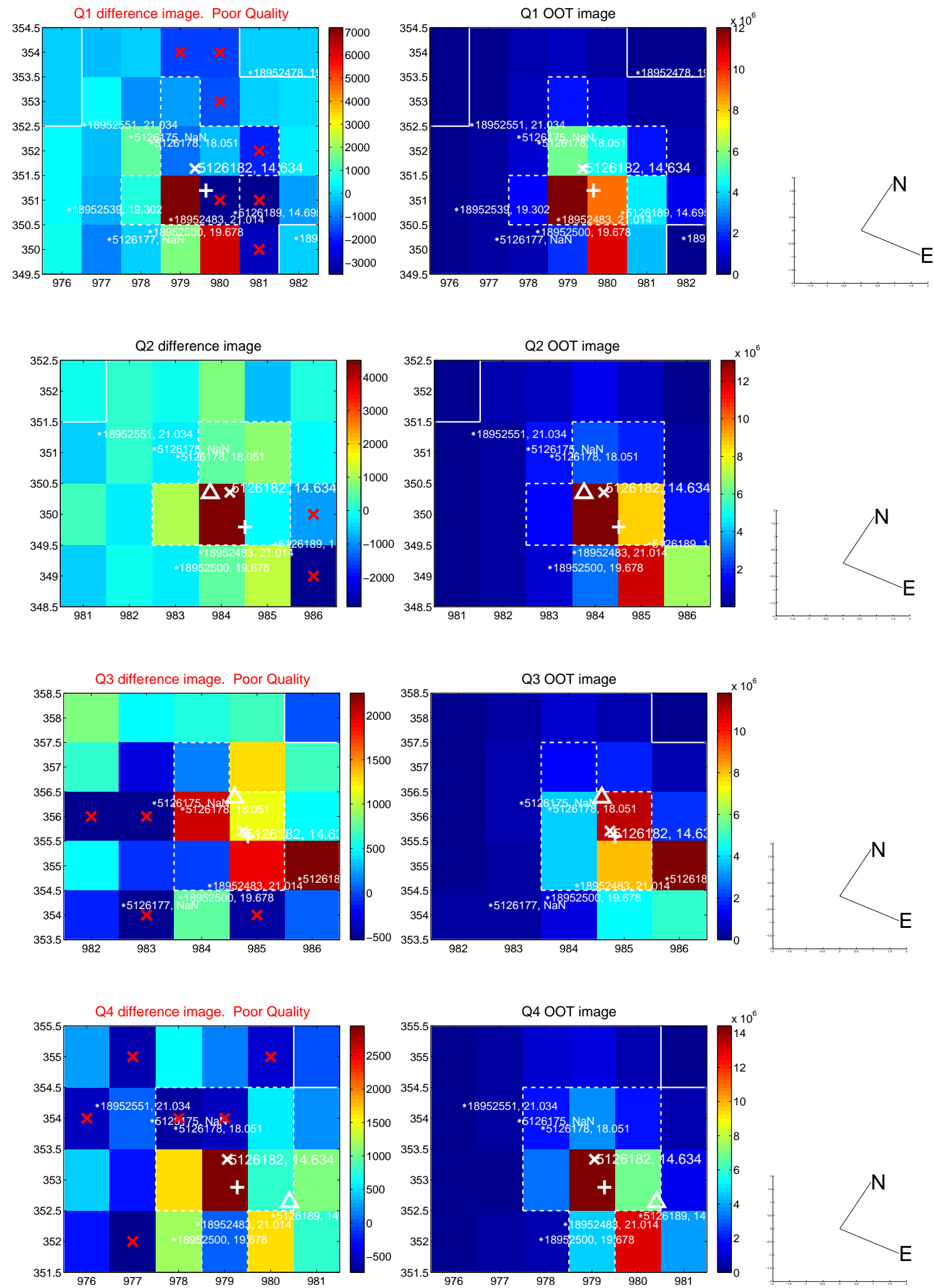
The OOT PRF centroid is offset from the target star catalog position by about 2.12 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.349 ± 0.996	2.36	-2.214 ± 0.989	0.786 ± 0.700
PRF-fit source offset from KIC position	0.797 ± 0.938	0.85	-0.751 ± 0.973	-0.266 ± 0.730
photometric centroid source offset	1.51 ± 0.69	2.21	1.51 ± 0.69	0.01 ± 0.53

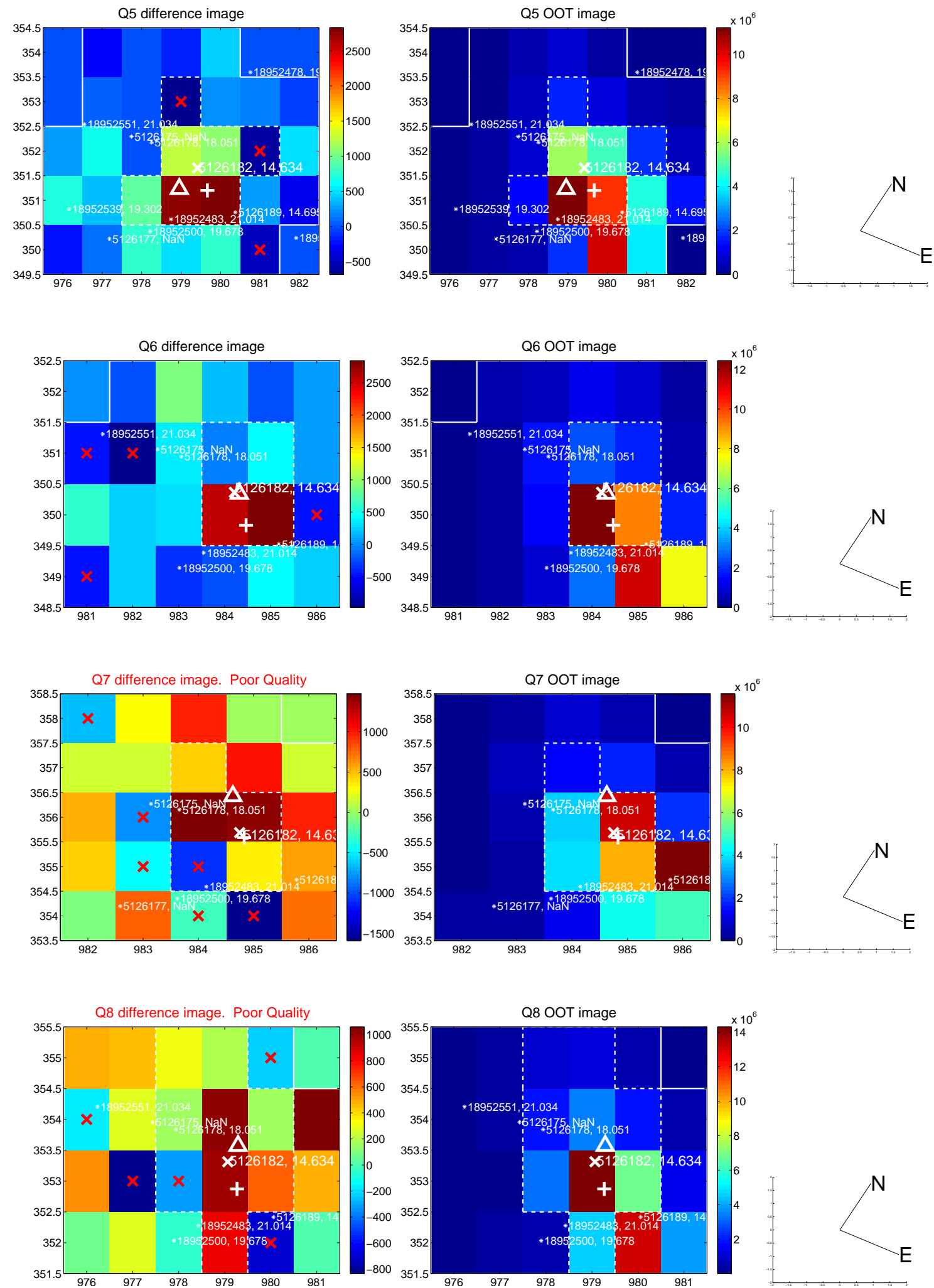


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

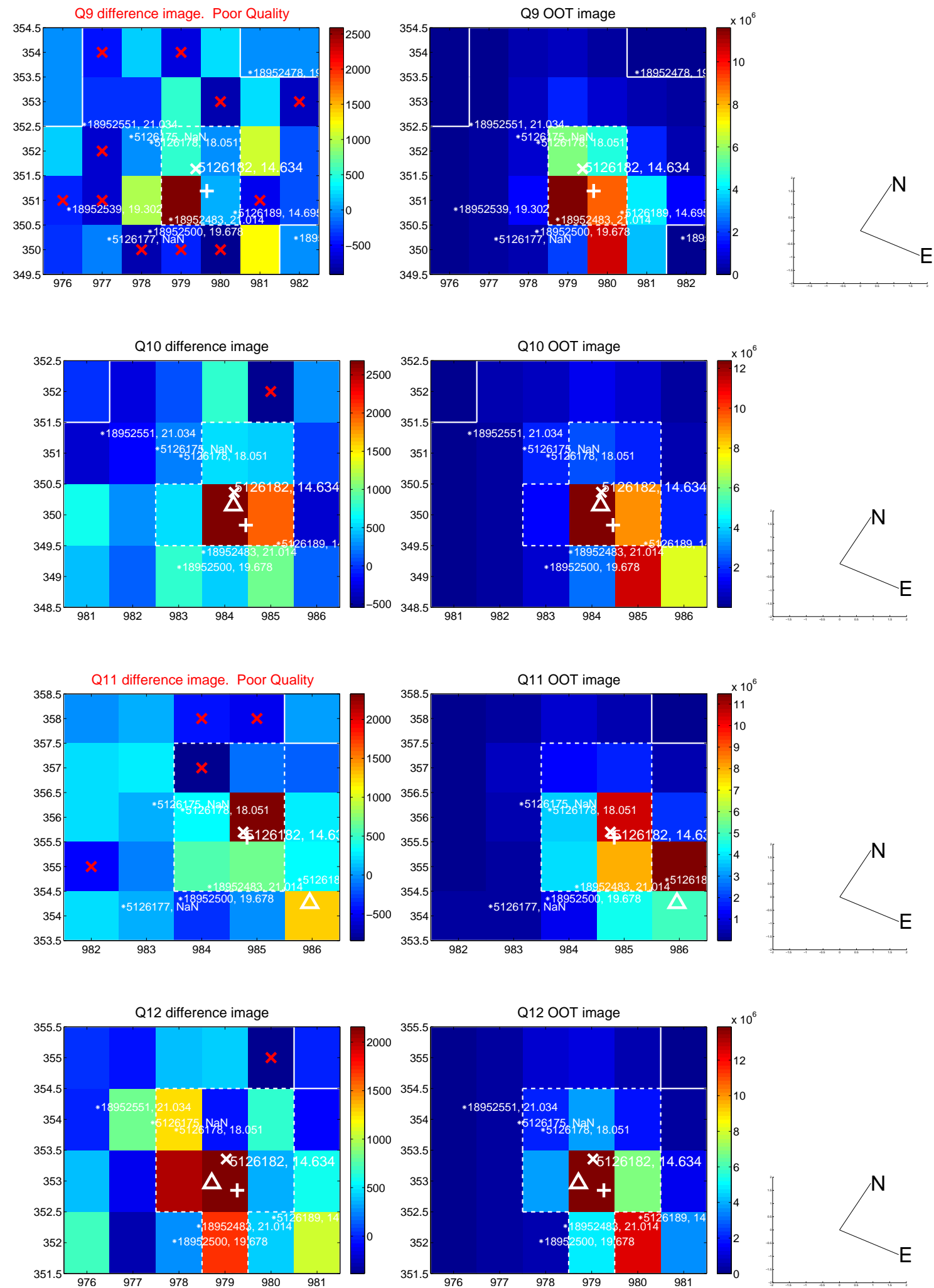
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



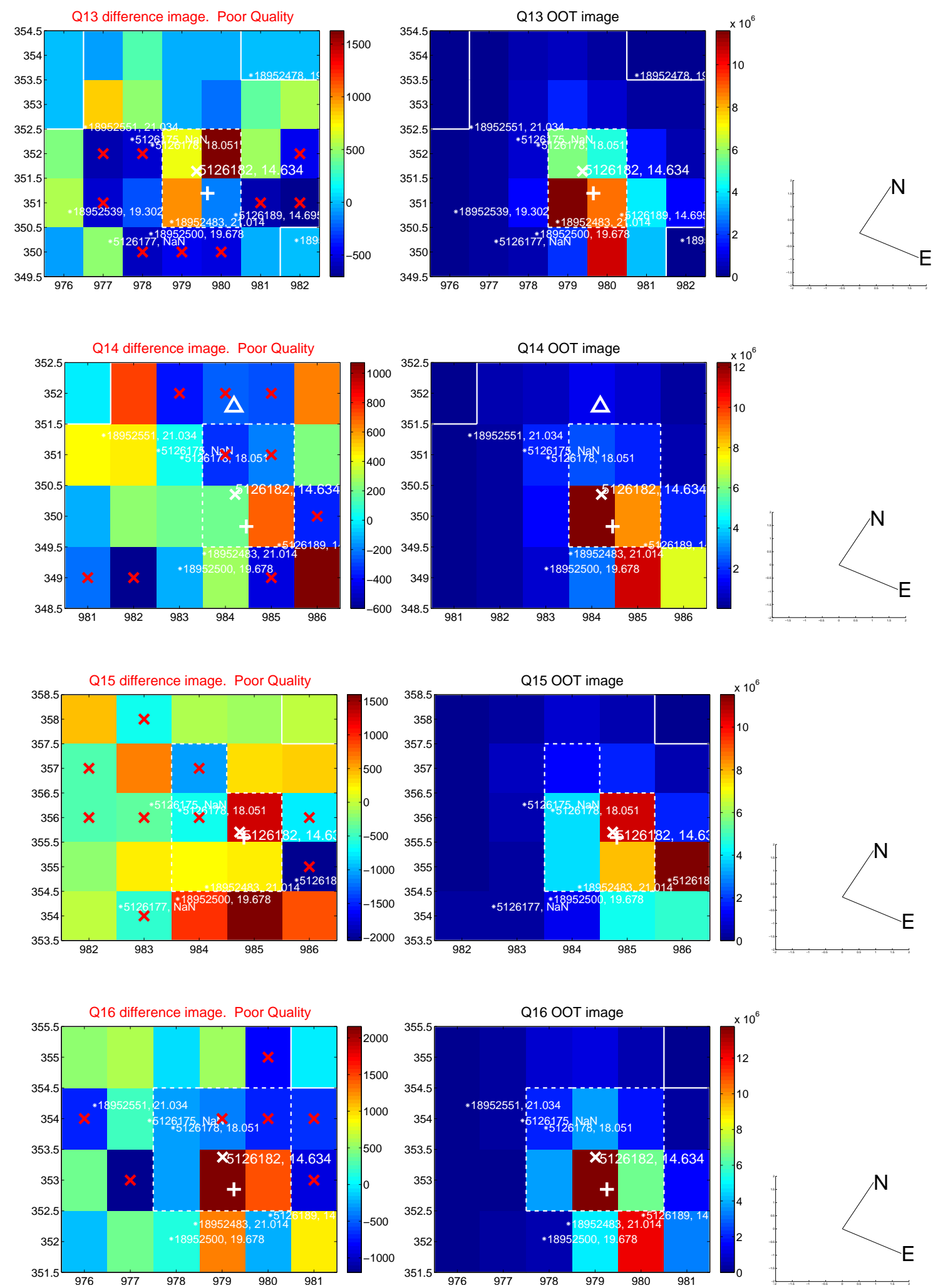
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



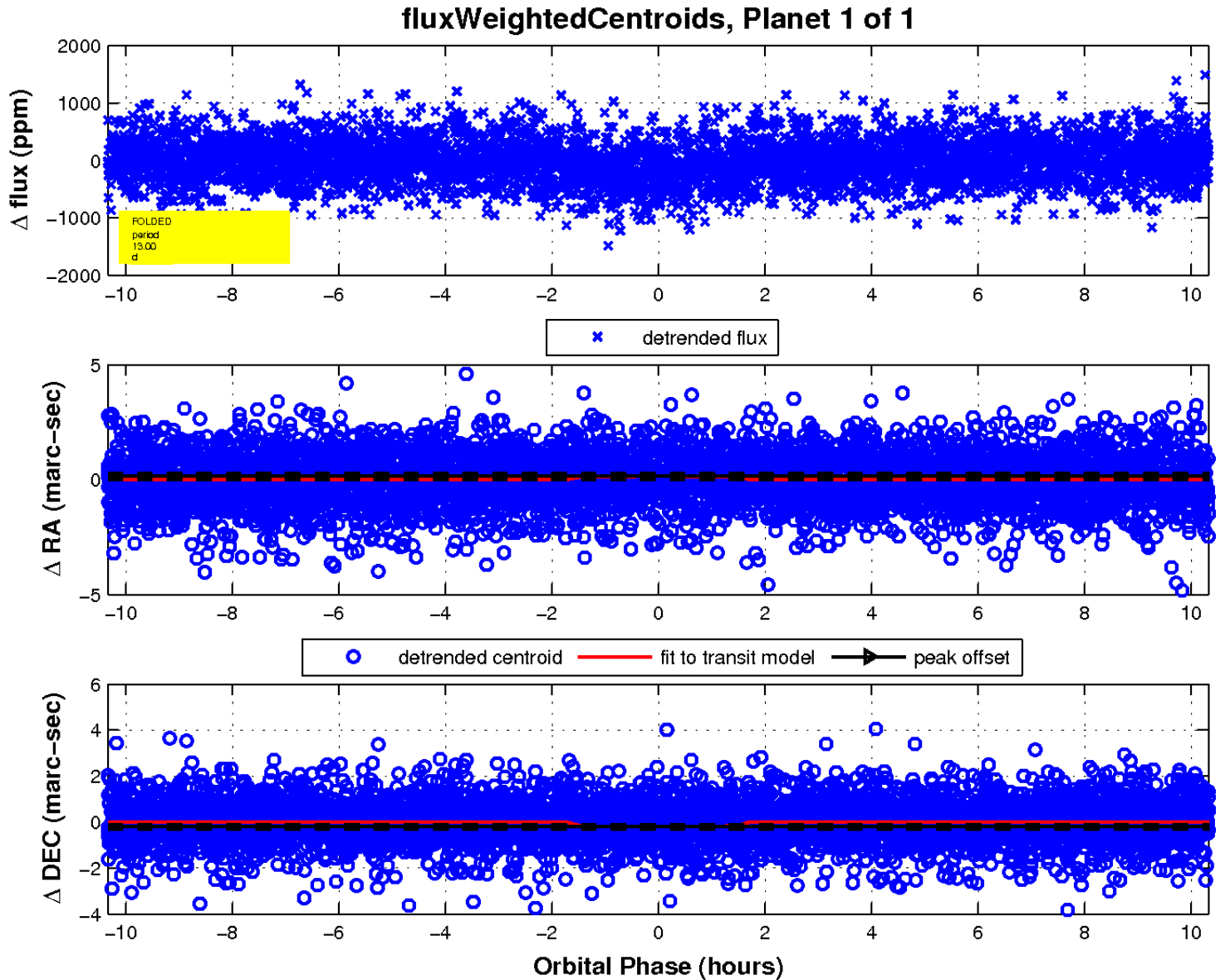
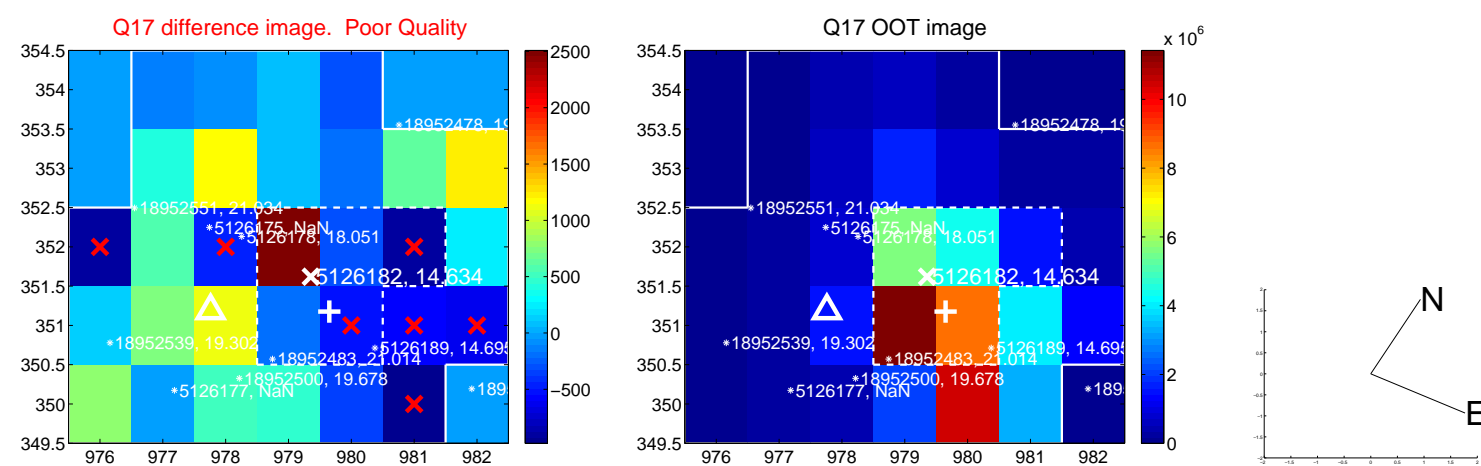
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UKIRT Image

