

KIC 003851151

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})
003851151-01	OBS	No	1.086650	131.965162	0.6	9.543	8.7	1.8	2.12	8405	0.16	29202.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003851151-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

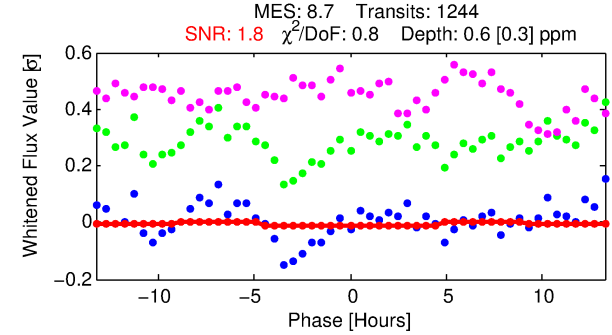
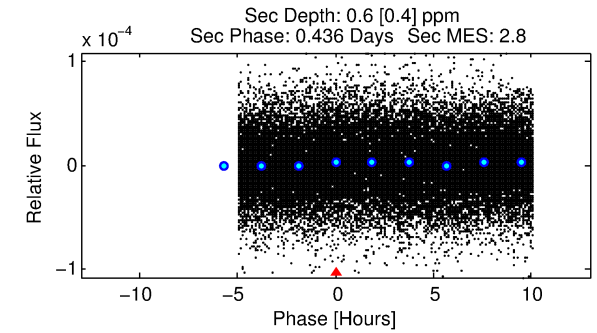
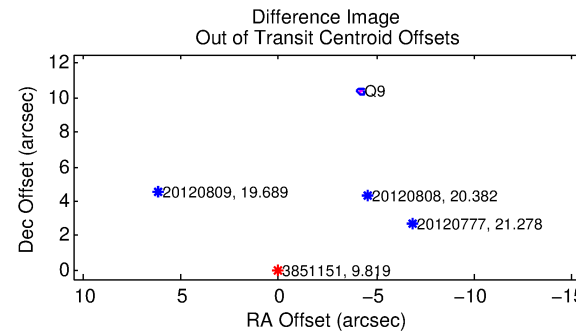
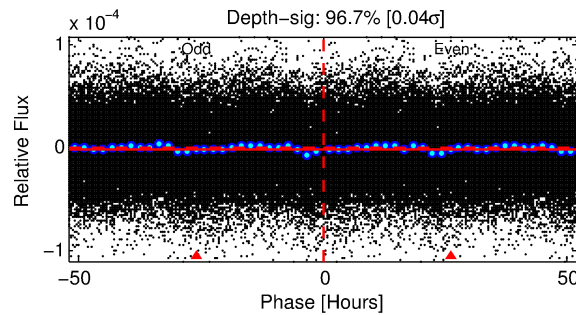
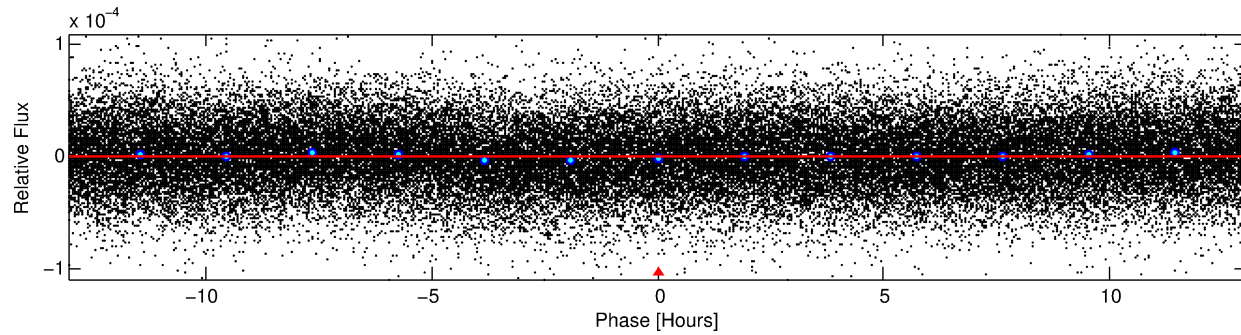
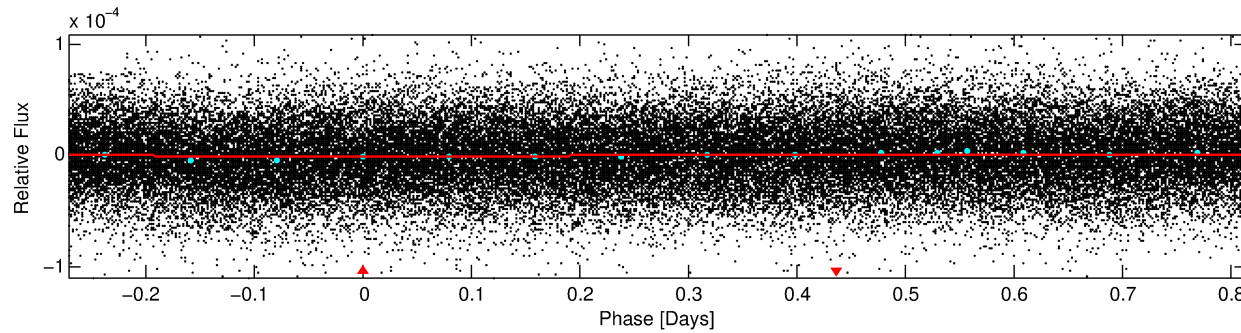
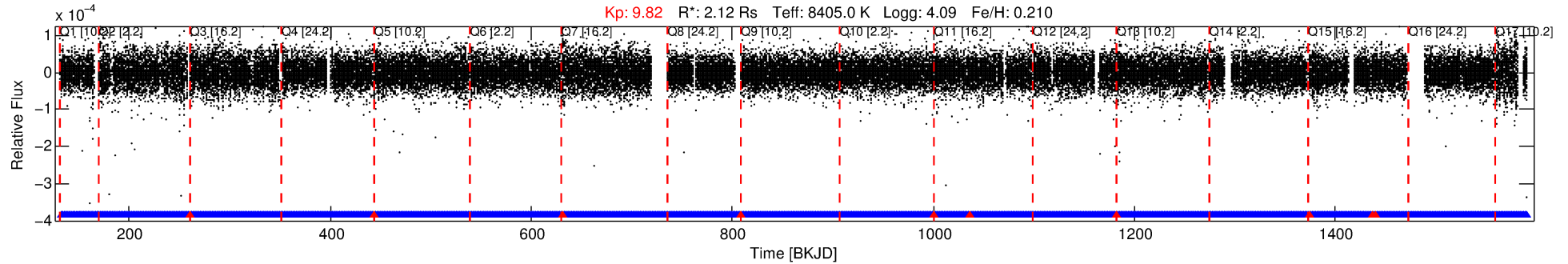
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003851151-01

No Significant Match Found

DV One-Page Summary

KIC: 3851151 Candidate: 1 of 1 Period: 1.087 d



DV Fit Results:

Period = 1.08665 [0.00010] d
Epoch = 131.9652 [0.0317] BKJD
 R_p/R^* = 0.0007 [0.0021]
 a/R^* = 1.09 [3.09]
 b = 0.30 [55.74]
 Seff = 29202.65 [10394.17]
 Teq = 3333 [297] K
 R_p = 0.16 [0.49] R_e
 a = 0.0263 [0.0056] AU
 Ag = 9.00 [55.09] [0.15 σ]
 Teffp = 8927 [13647] K [0.41 σ]

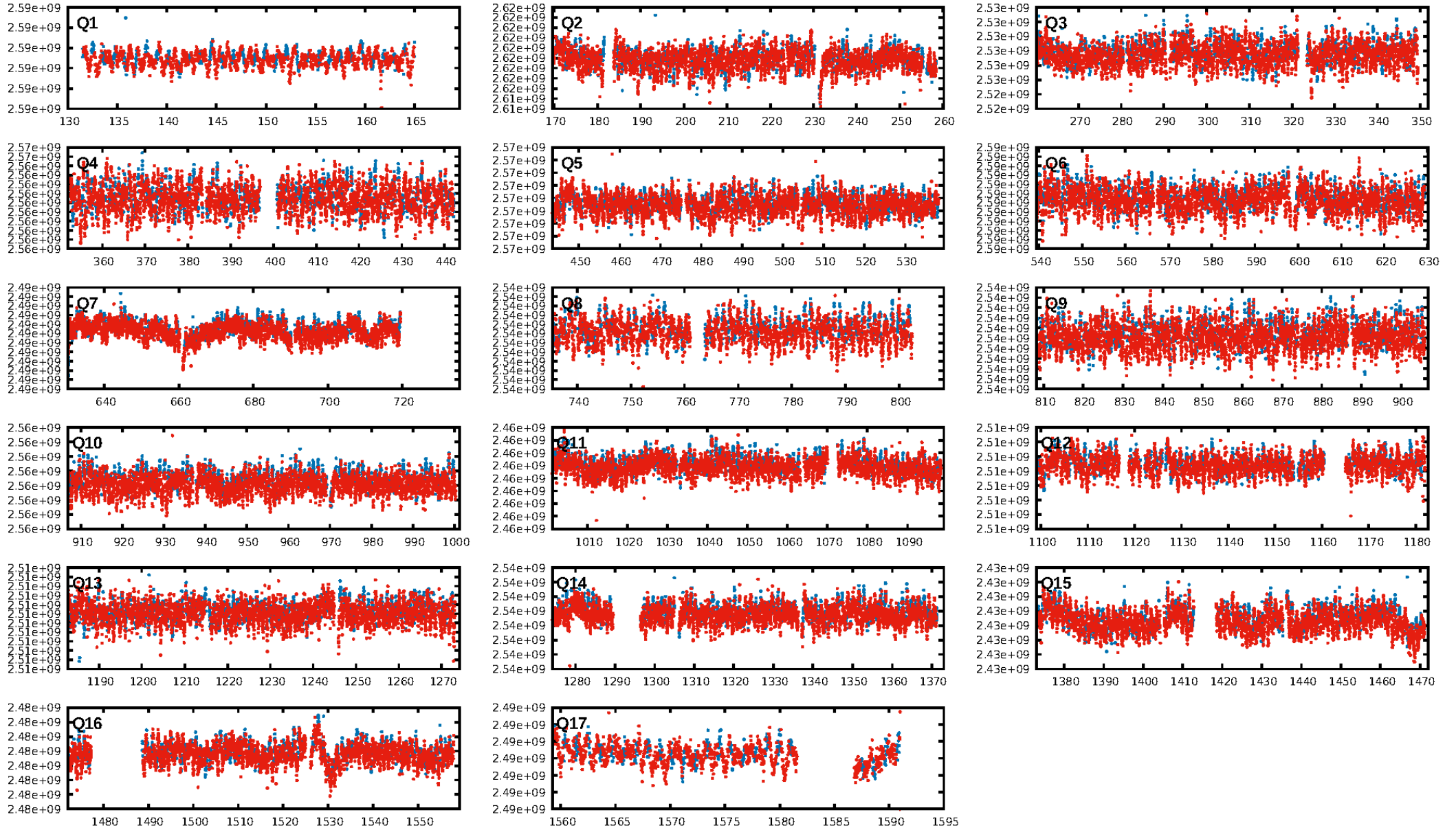
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1178/1188]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 11.163 arcsec [165.45 σ]
KicOffset-rm: 9.843 arcsec [145.88 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

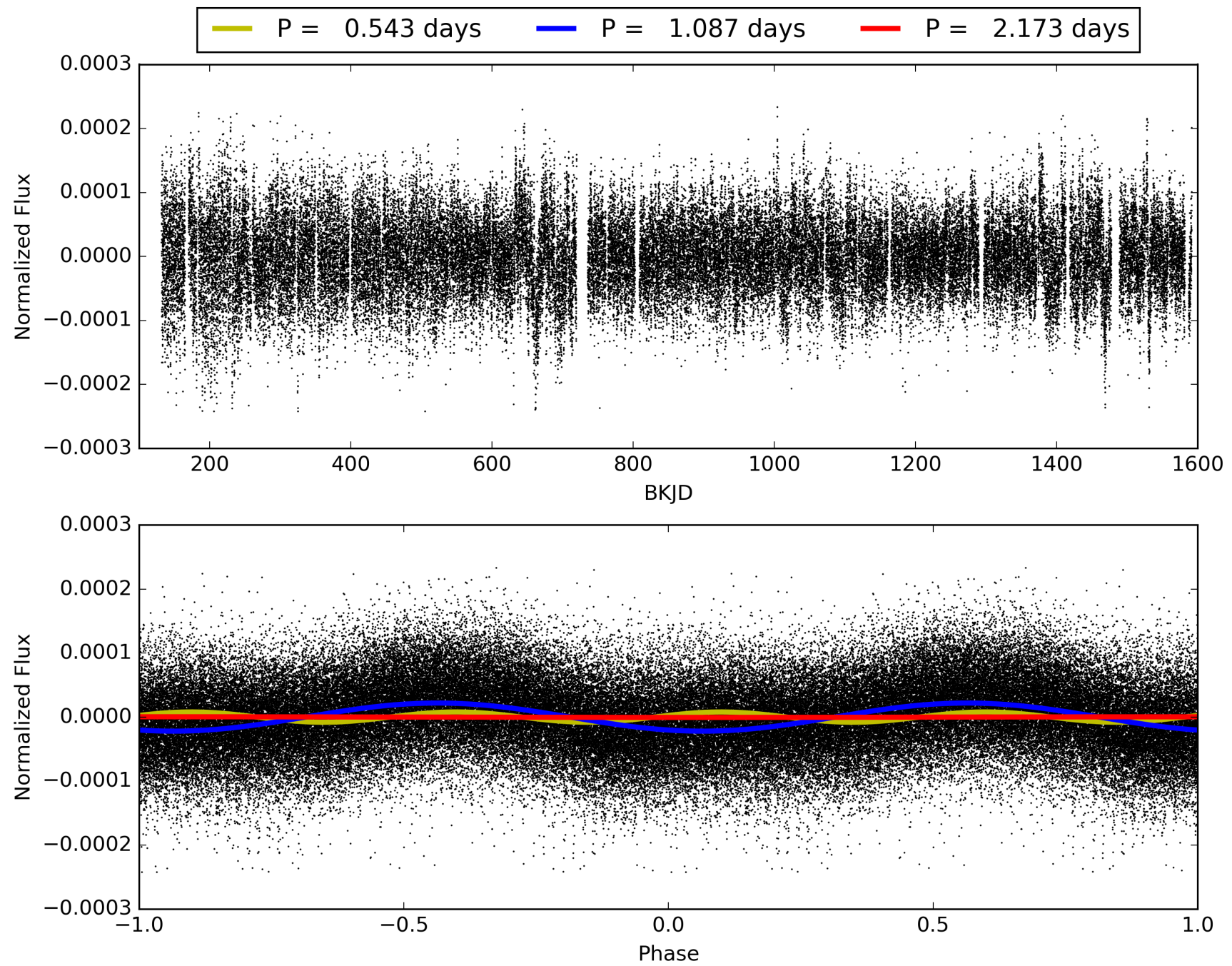
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:50:47 Z

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

TCE 003851151-01, PDC Light Curves

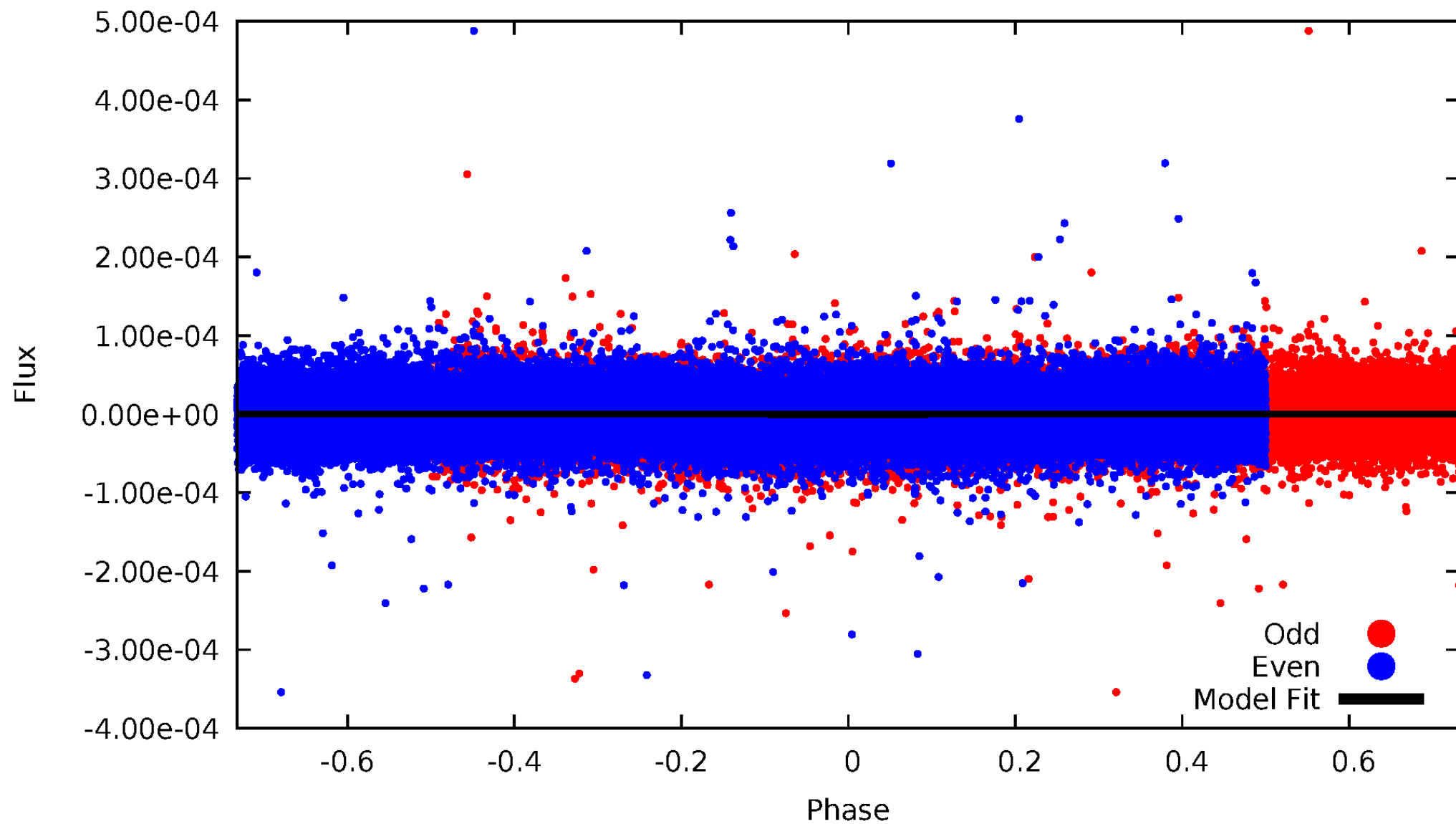


TCE 003851151-01



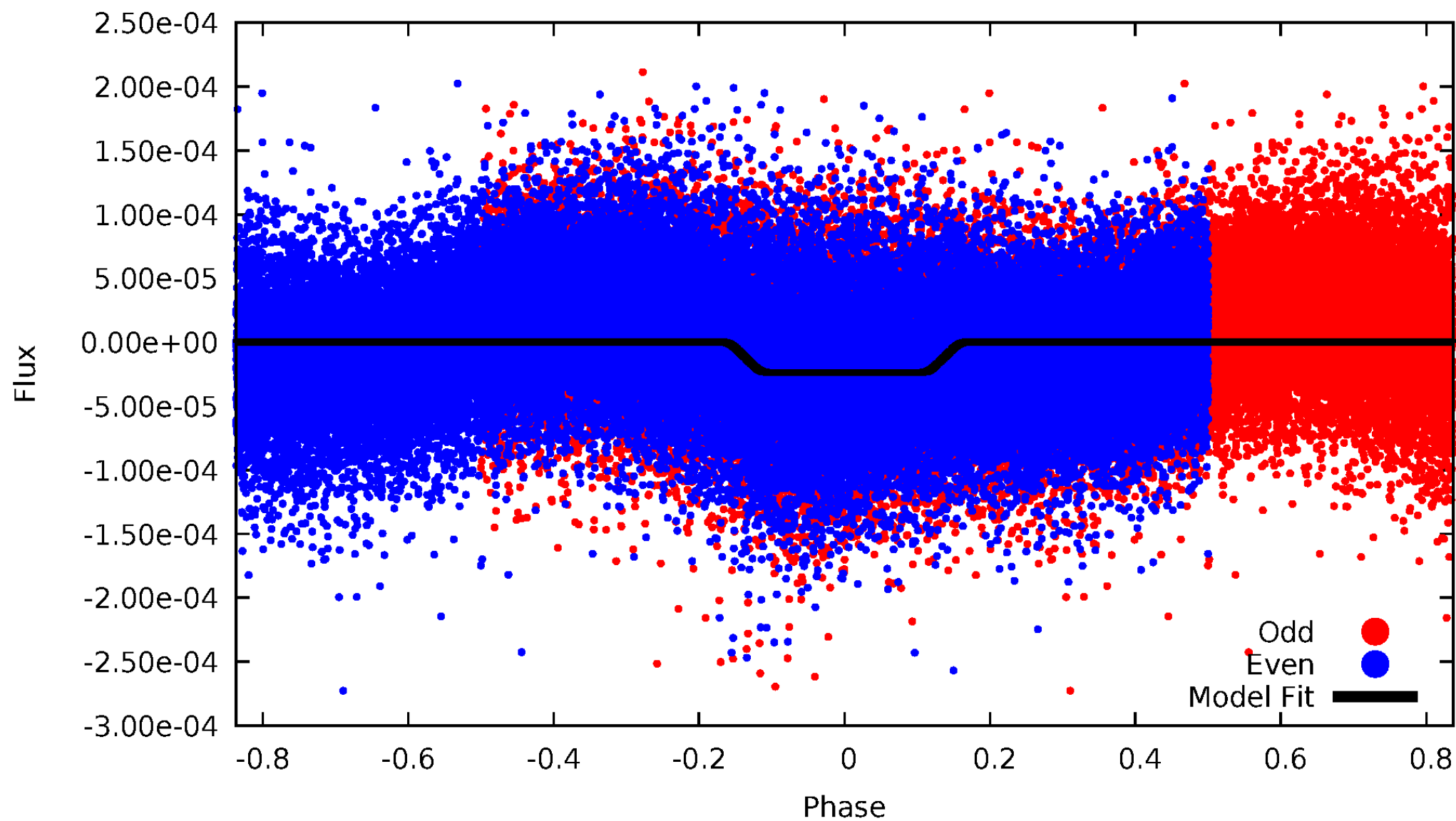
DV Odd/Even

TCE 003851151-01

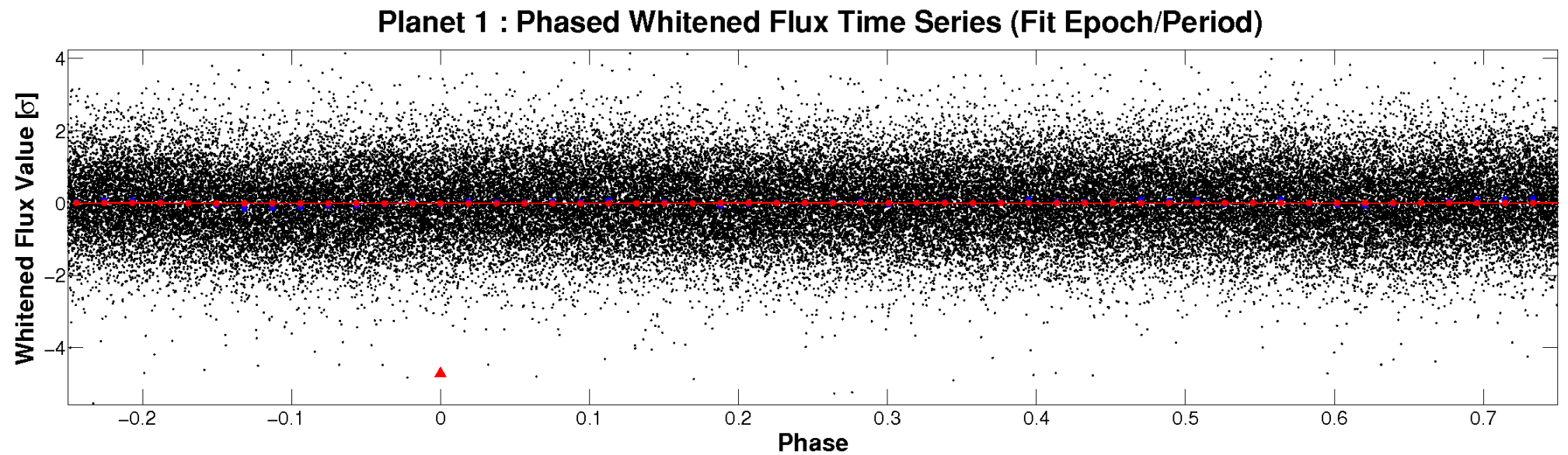
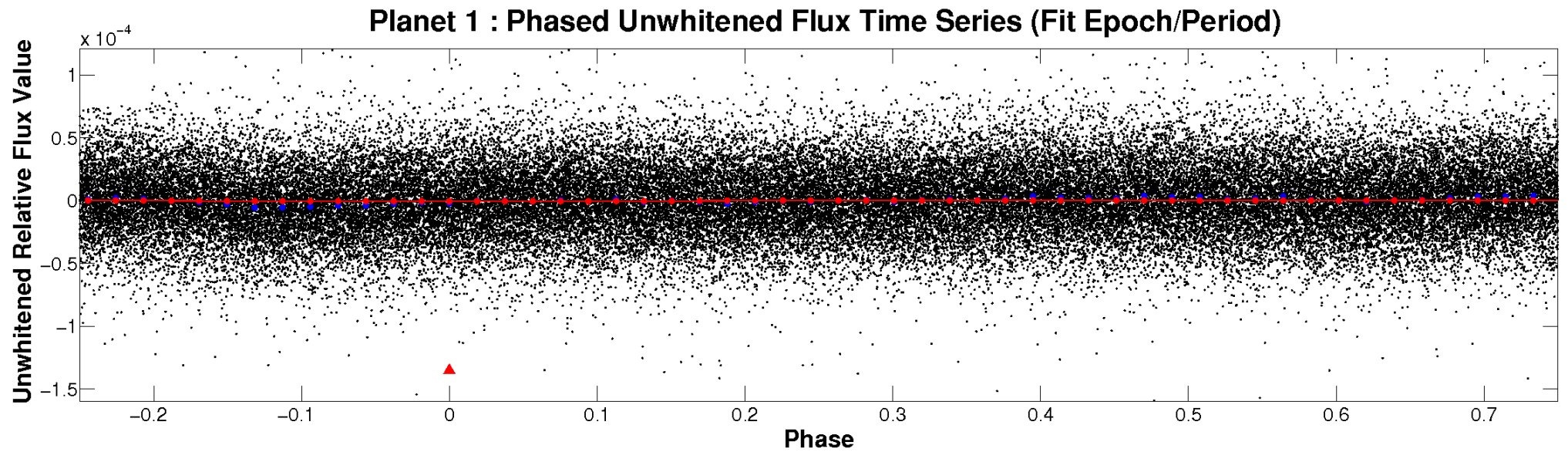


ALT Odd/Even

TCE 003851151-01

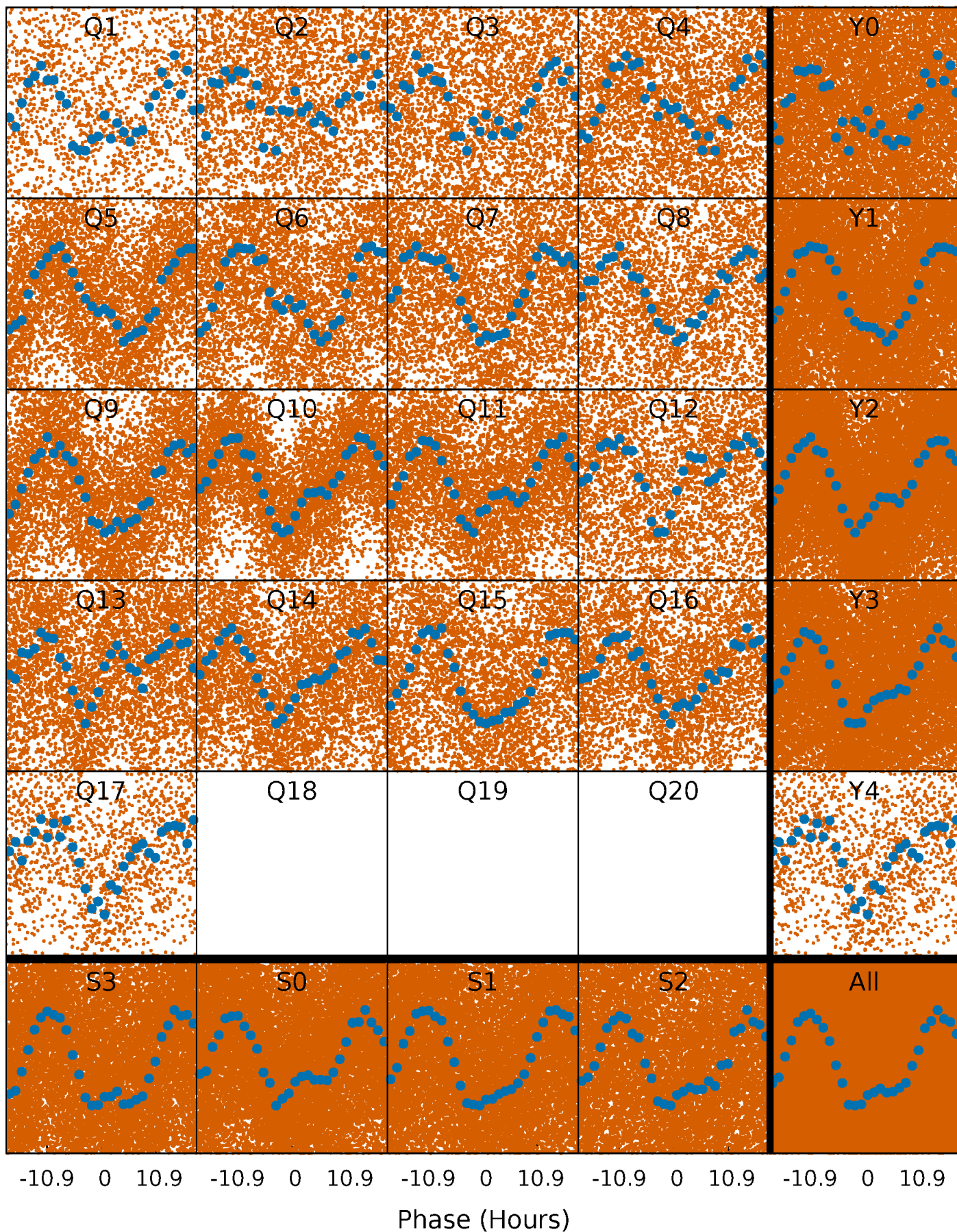


Non-Whitened Vs. Whitened Light Curve



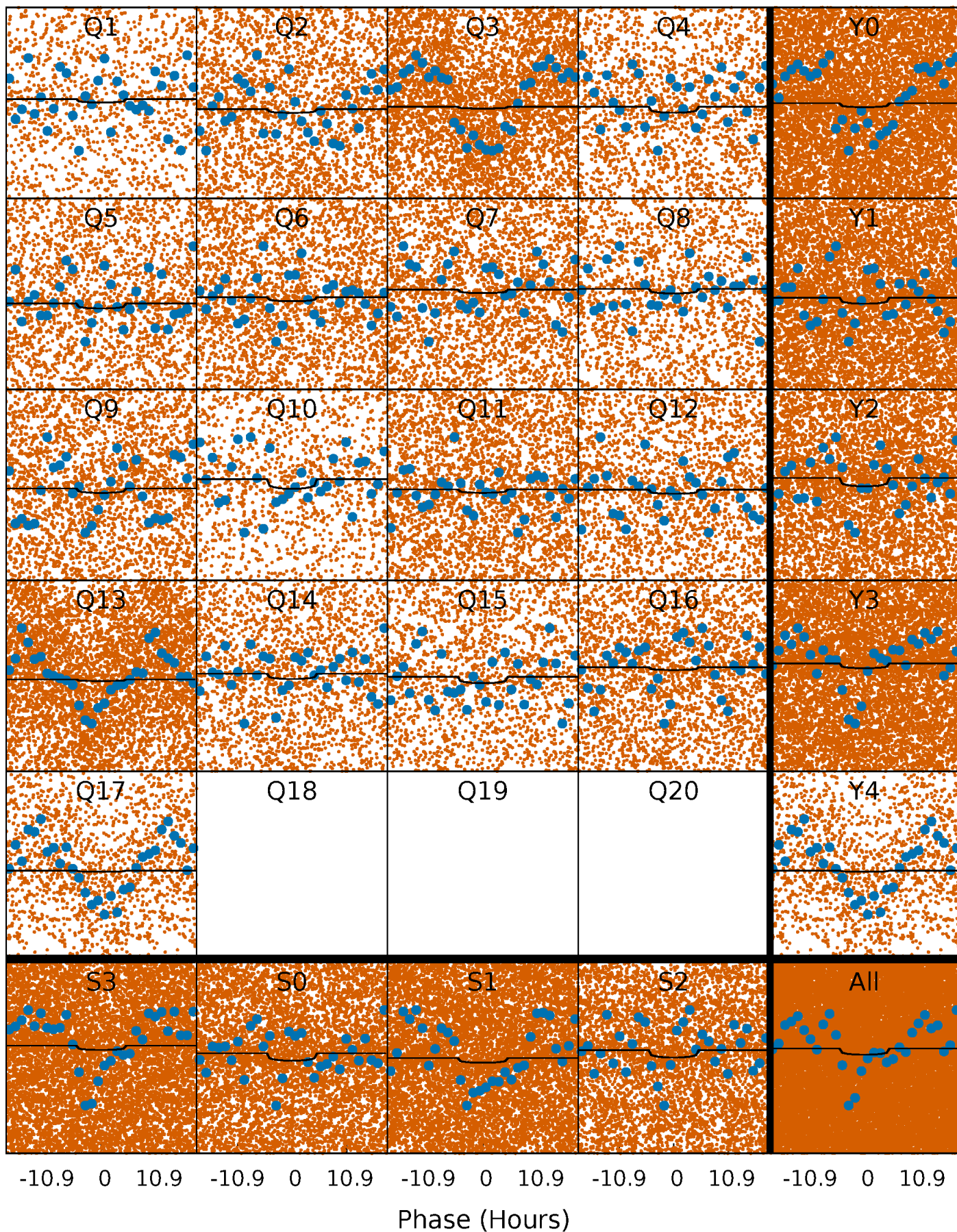
PDC Quarter-Phased Transit Curves

TCE 003851151-01 P= 1.086650 Days $T_0=131.965162$ (BKJD)



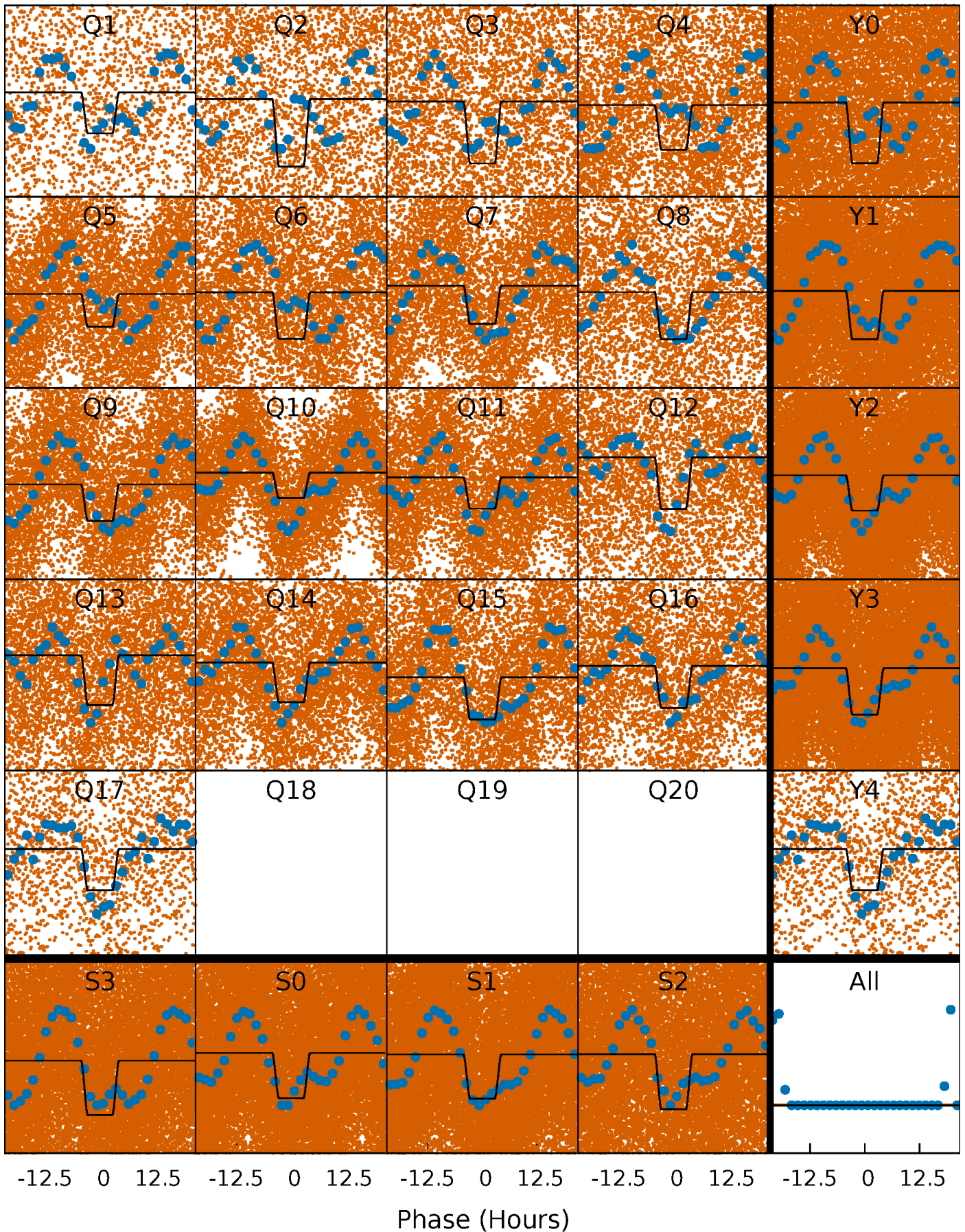
DV Quarter-Phased Transit Curves

TCE 003851151-01 P= 1.086650 Days $T_0=131.965162$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

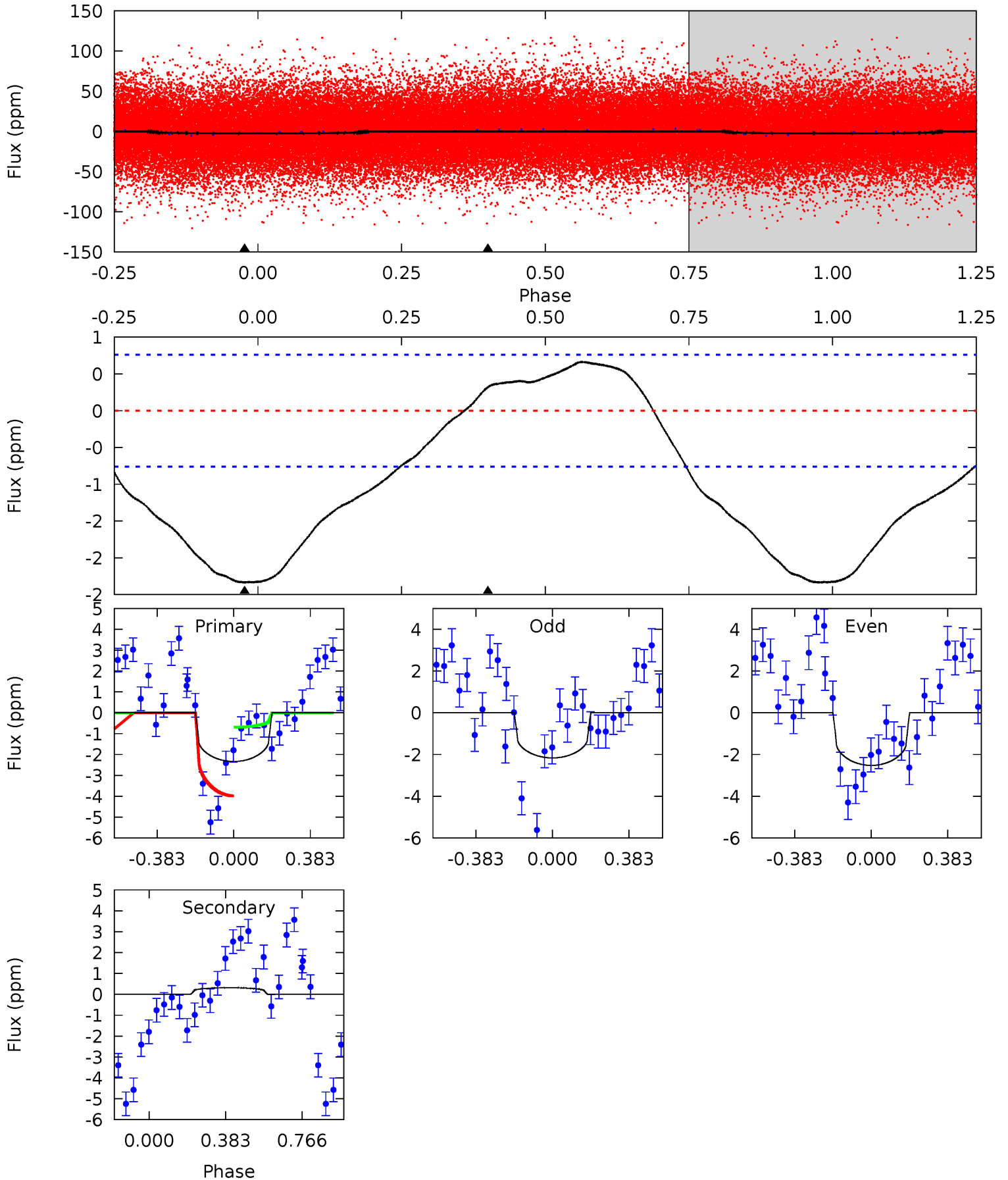
TCE 003851151-01 P= 1.086680 Days $T_0=131.893979$ (BKJD)



DV Model-Shift Uniqueness Test

003851151-01, P = 1.086650 Days, E = 130.878512 Days

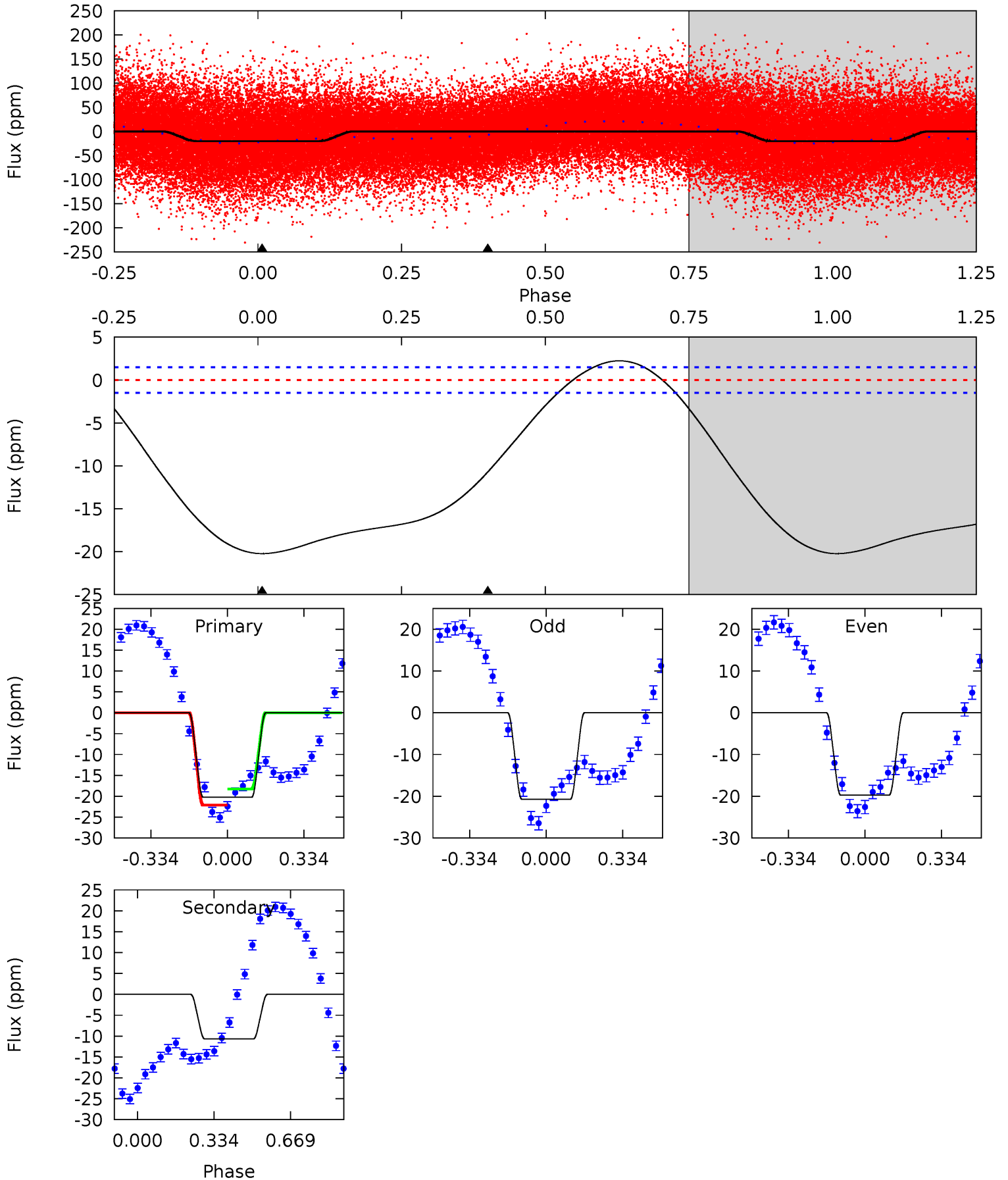
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	-1.79	0	0	4.27	0.87	2.06	13.1	13.1	-1.79	-1.79	1.01	0.90	0.22	9.35



Alt Model-Shift Uniqueness Test

003851151-01, P = 1.086680 Days, E = 130.807299 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.7	31.1	0	0	4.30	0.97	4.95	58.7	58.7	31.1	31.1	1.46	0.96	0.10	5.52



Stellar Parameters For KIC 003851151

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8405^{+236}_{-405}	$4.095^{+0.116}_{-0.159}$	$0.210^{+0.150}_{-0.550}$	$2.122^{+0.551}_{-0.451}$	$2.041^{+0.297}_{-0.409}$	$0.301^{+0.190}_{-0.134}$
	+3%/-5%	+3%/-4%	+71%/-262%	+26%/-21%	+15%/-20%	+63%/-45%
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 003851151-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 0	$0.40^{+0.38}_{-0.27}$	4677^{+312}_{-320}	-4988^{+697}_{-3474}	$-0.613^{+0.487}_{-6.185}$
Alt.	-11 ± 0	$1.13^{+0.53}_{-0.49}$	4681^{+313}_{-297}	6496^{+2662}_{-1248}	$3.139^{+6.238}_{-1.717}$

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 $A_{obs} \gg 1.0$

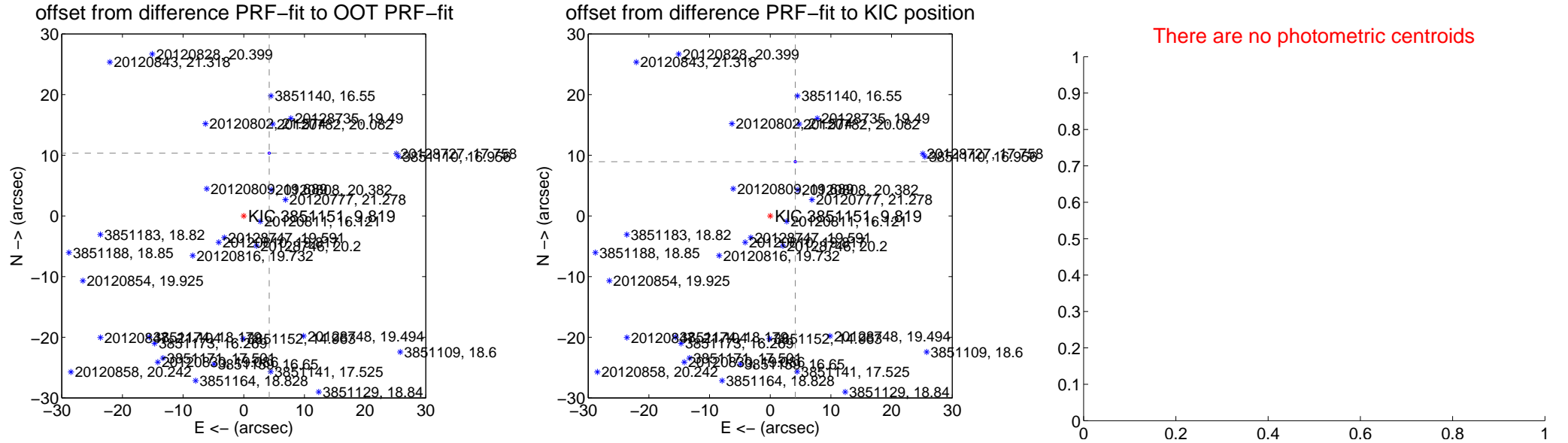
DV Centroid Data

Supplemental centroid analysis for 003851151-01. **Kepler magnitude: 9.82.** Transit SNR 1.80

There are 1 quarters with good PRF difference image offsets

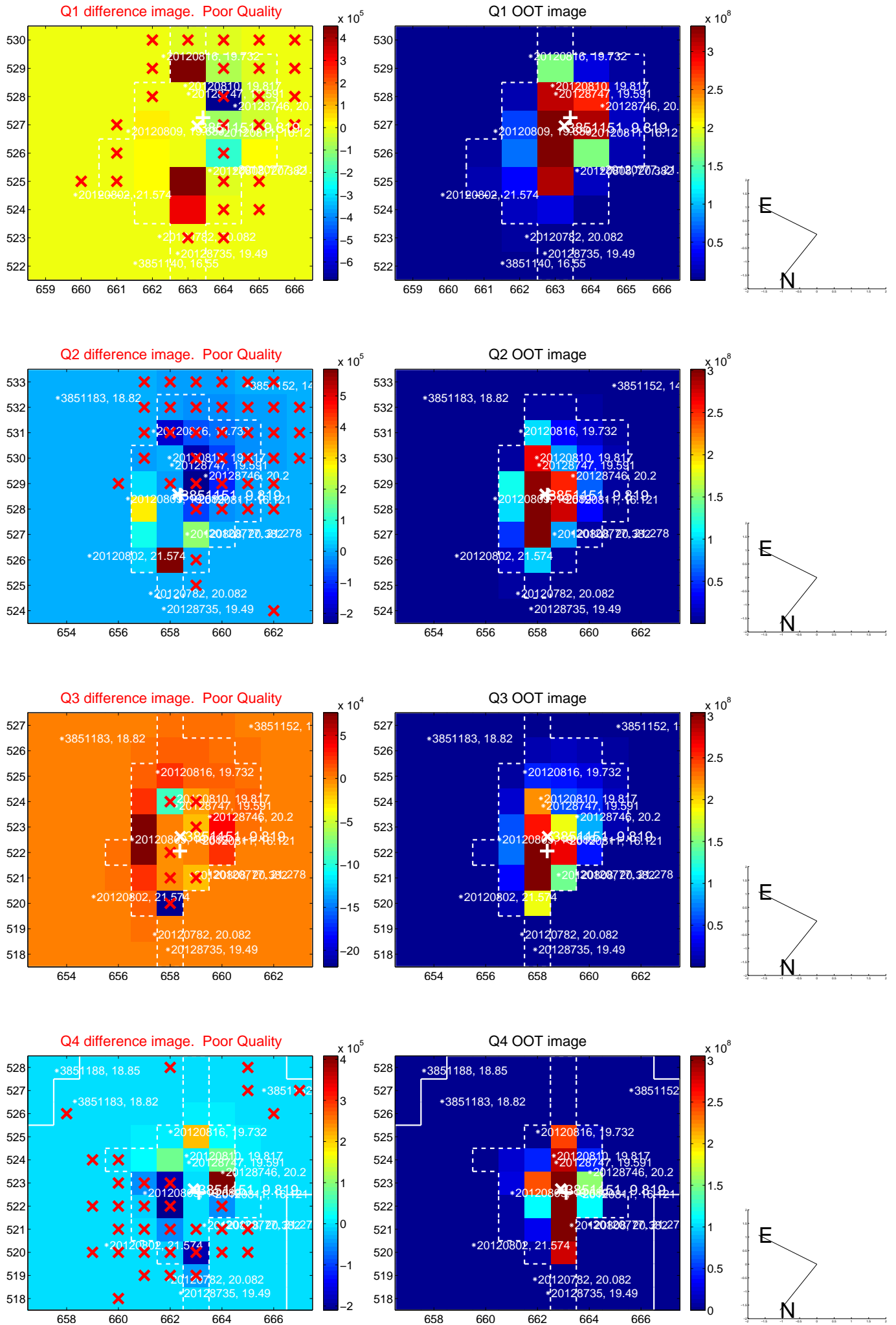
The direct PRF centroid is offset from the target star catalog position by about 1.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.163 \pm 0.067	165.45	-4.193 \pm 0.068	10.345 \pm 0.067
PRF-fit source offset from KIC position	9.843 \pm 0.067	145.88	-4.129 \pm 0.068	8.935 \pm 0.067
photometric centroid source offset	—	—	—	—

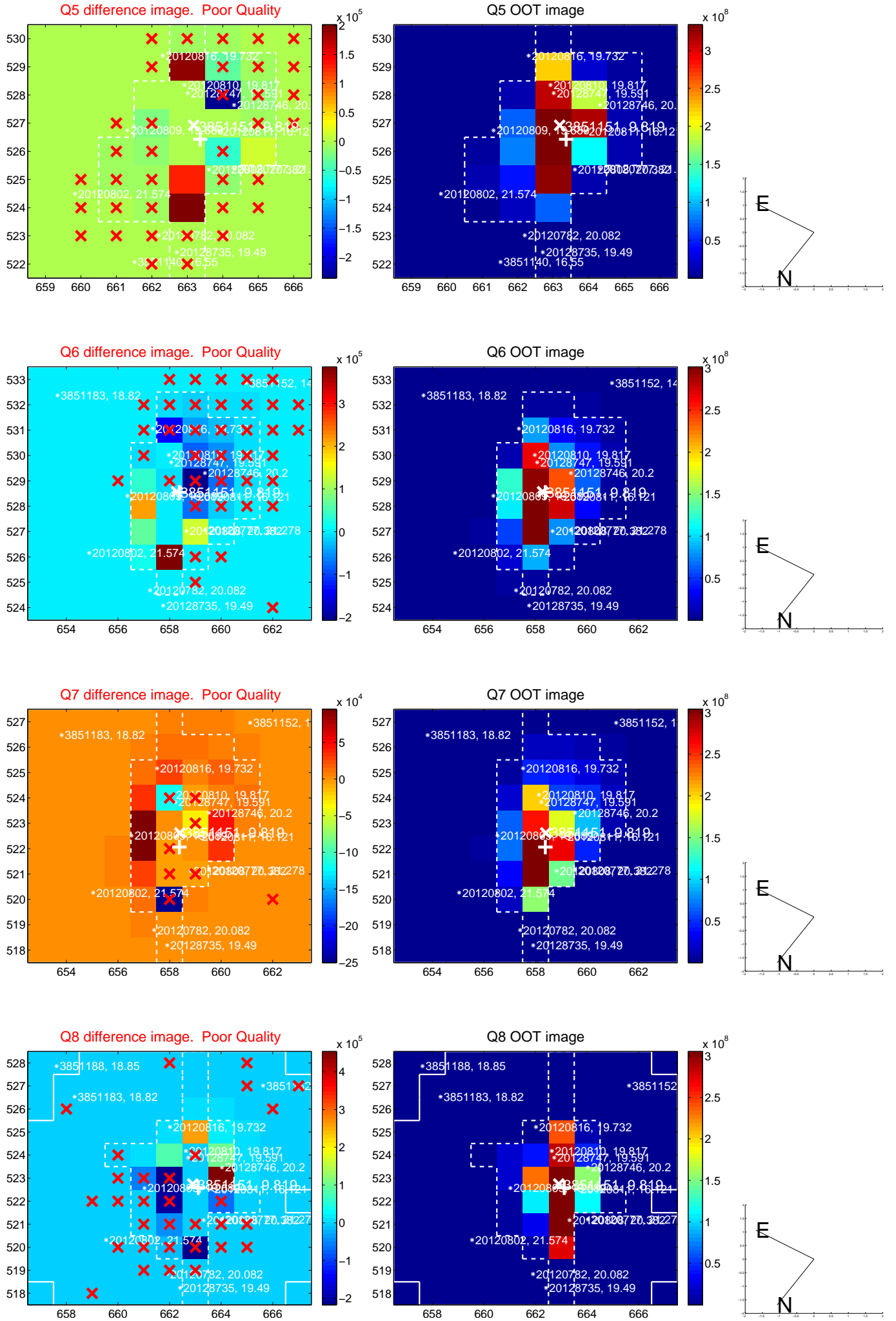


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

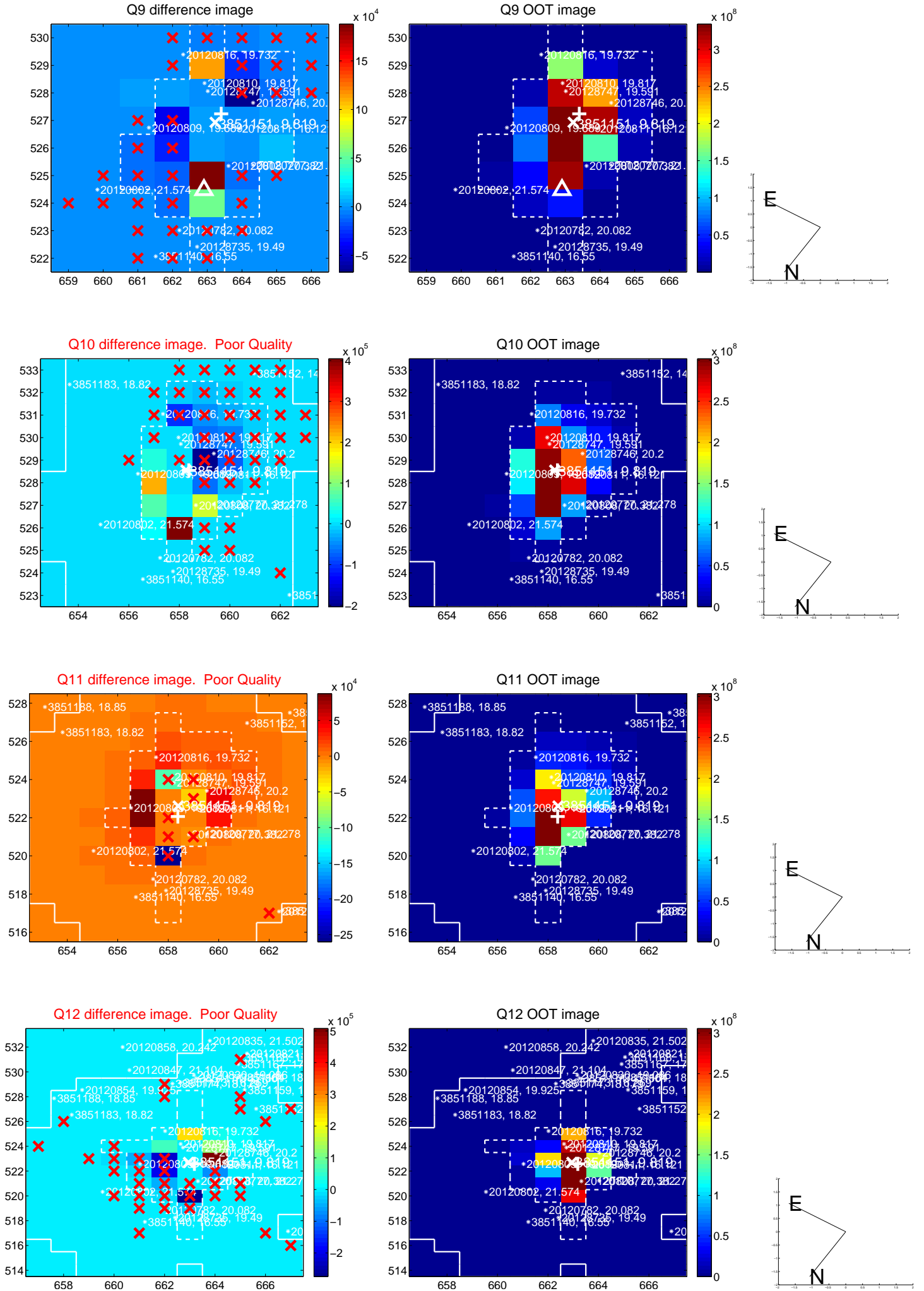
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



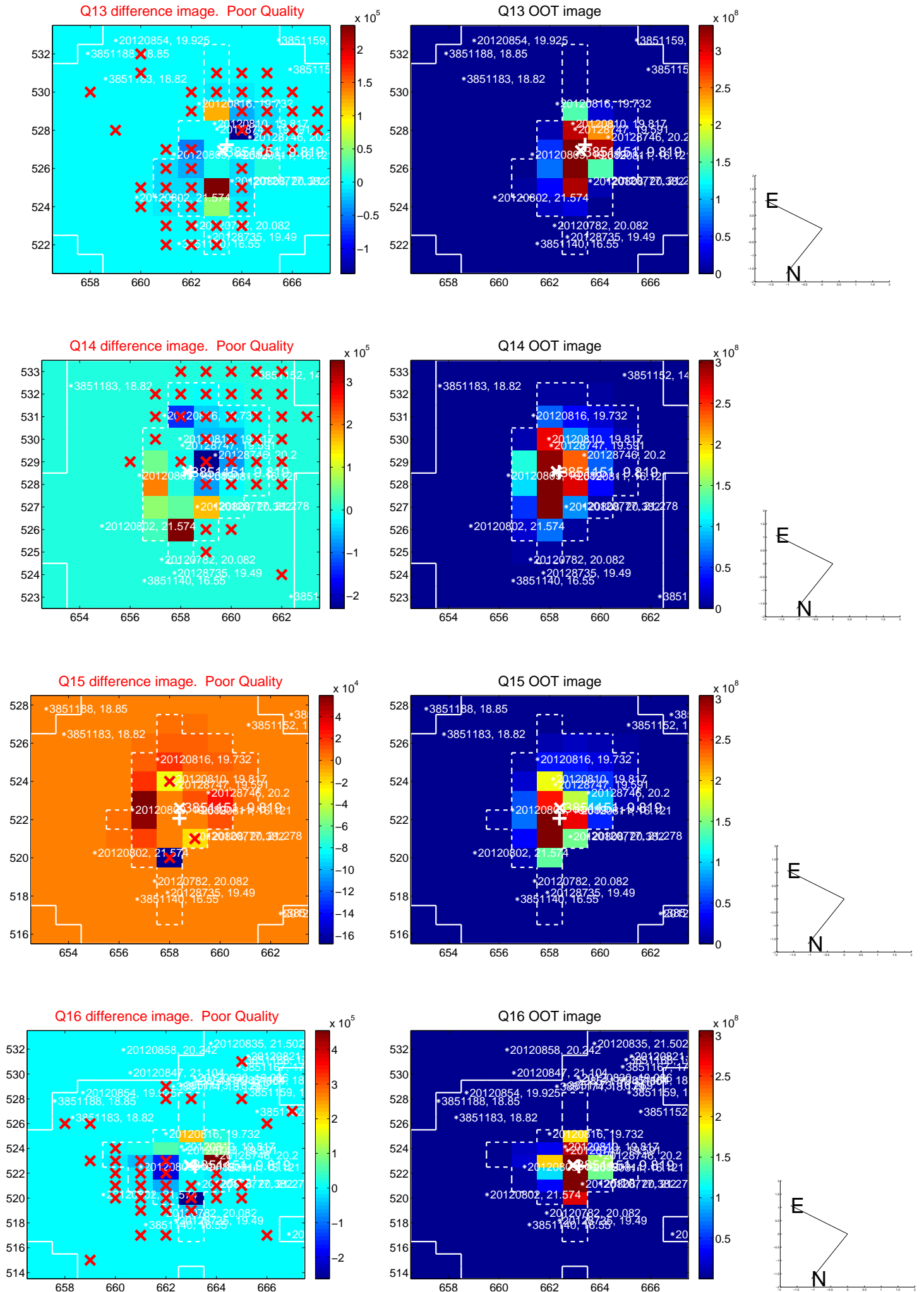
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



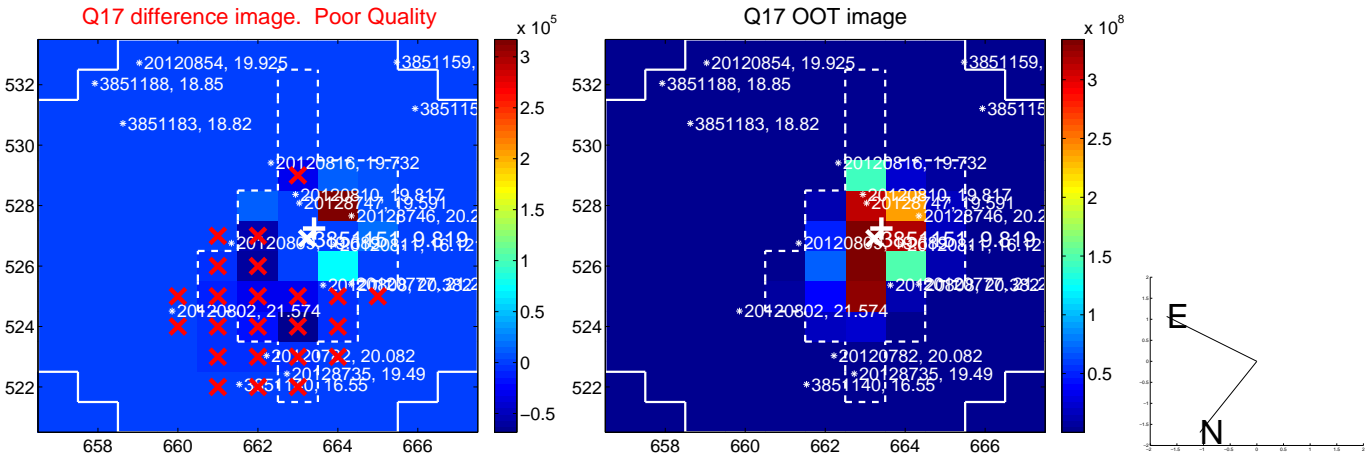
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

