

KIC 007364845

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})
007364845-01	OBS	No	2.081212	132.493362	43.9	2.726	8.5	8.1	2.08	6770	1.43	6046.53
007364845-02	OBS	No	2.074833	132.593290	2.6	0.965	8.3	0.3	2.08	6770	0.34	6071.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007364845-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007364845-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT

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

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

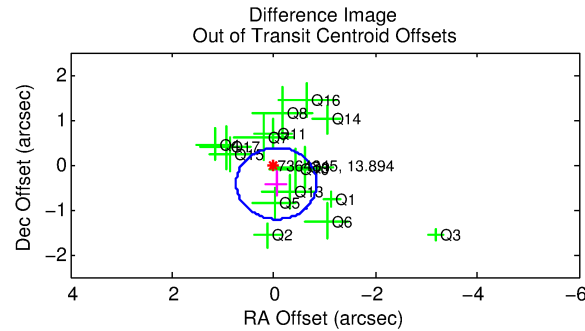
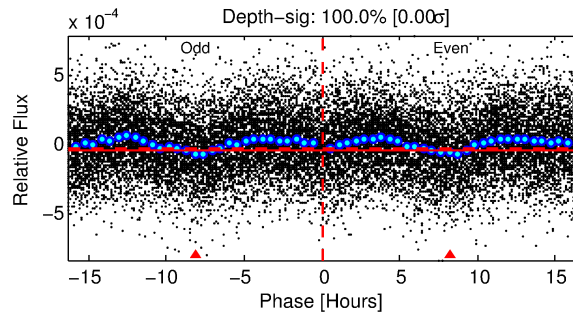
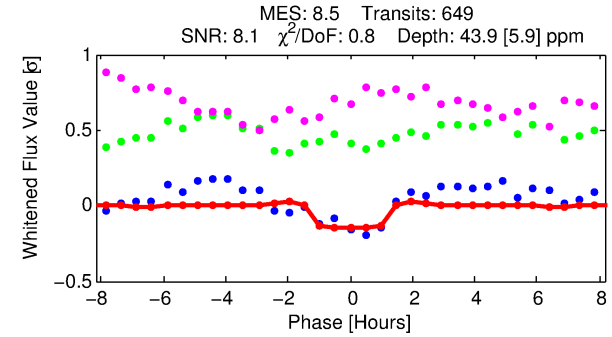
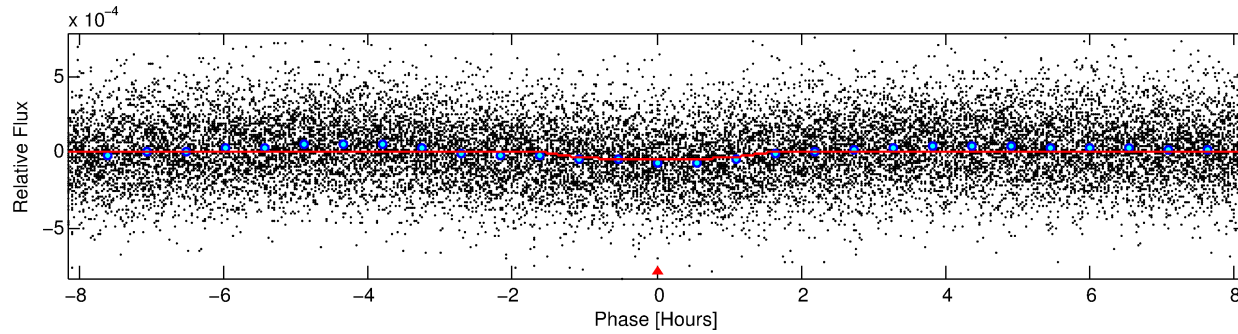
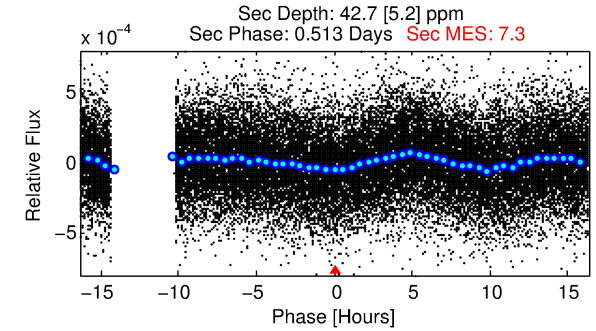
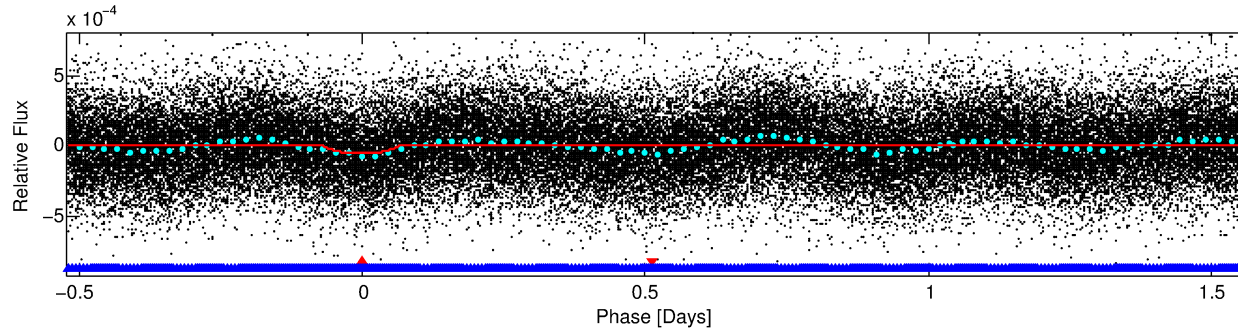
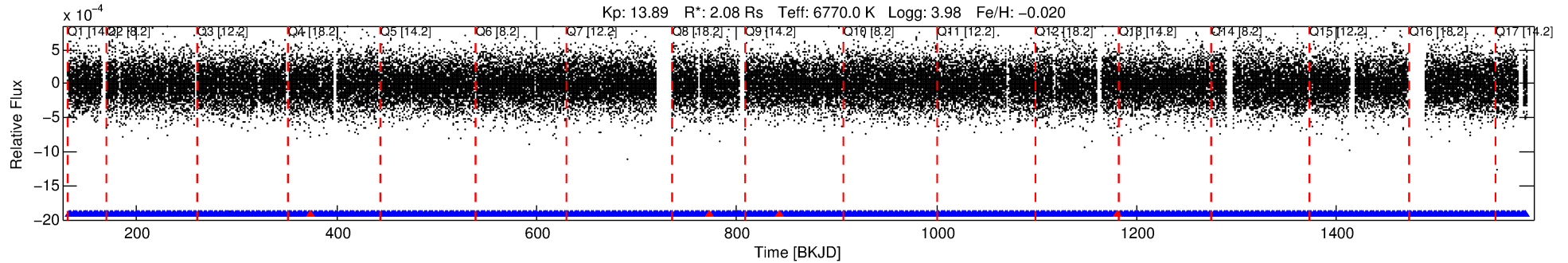
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007364845-01

No Significant Match Found

DV One-Page Summary

KIC: 7364845 Candidate: 1 of 2 Period: 2.081 d



DV Fit Results:

Period = 2.08121 [0.00002] d
Epoch = 132.4934 [0.0036] BKJD
Rp/R* = 0.0063 [0.0018]
a/R* = 5.07 [7.61]
b = 0.52 [2.18]
Seff = 6046.53 [1861.85]
Teq = 2249 [173] K
Rp = 1.43 [0.51] Re
a = 0.0366 [0.0072] AU
Ag = 15.46 [10.22] [1.41σ]
Teffp = 6894 [1015] K [4.51σ]

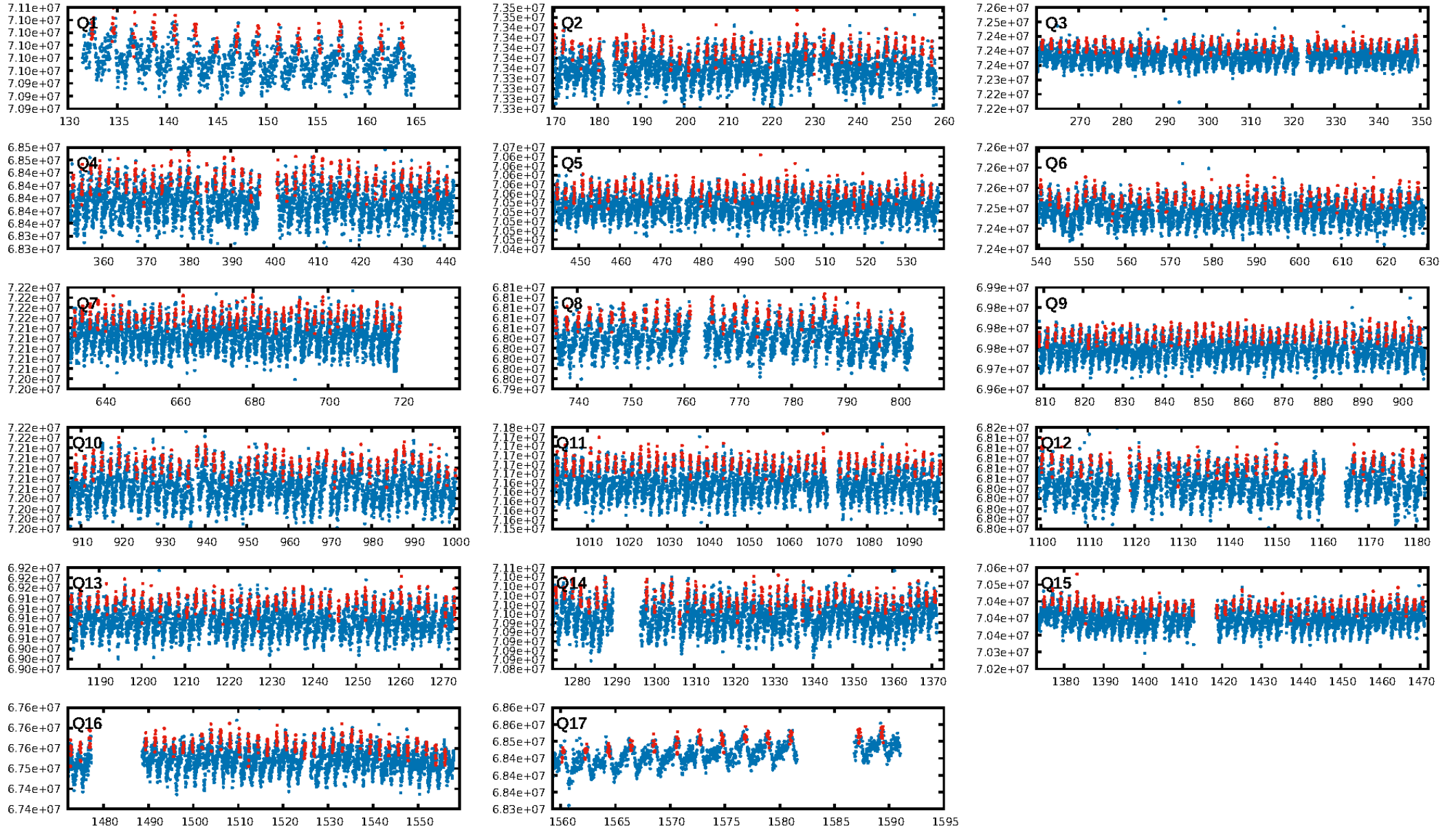
DV Diagnostic Results:

ShortPeriod-sig: 4.2% [0.05σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.07e-15
RollingBand-fgt: 0.99 [616/620]
GhostDiagnostic-chr: -2.27
Centroid-sig: 0.0%
Centroid-so: 3.029 arcsec [3.52σ]
OotOffset-rm: 0.422 arcsec [1.60σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.473 arcsec [1.82σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 0.65 [11/17]

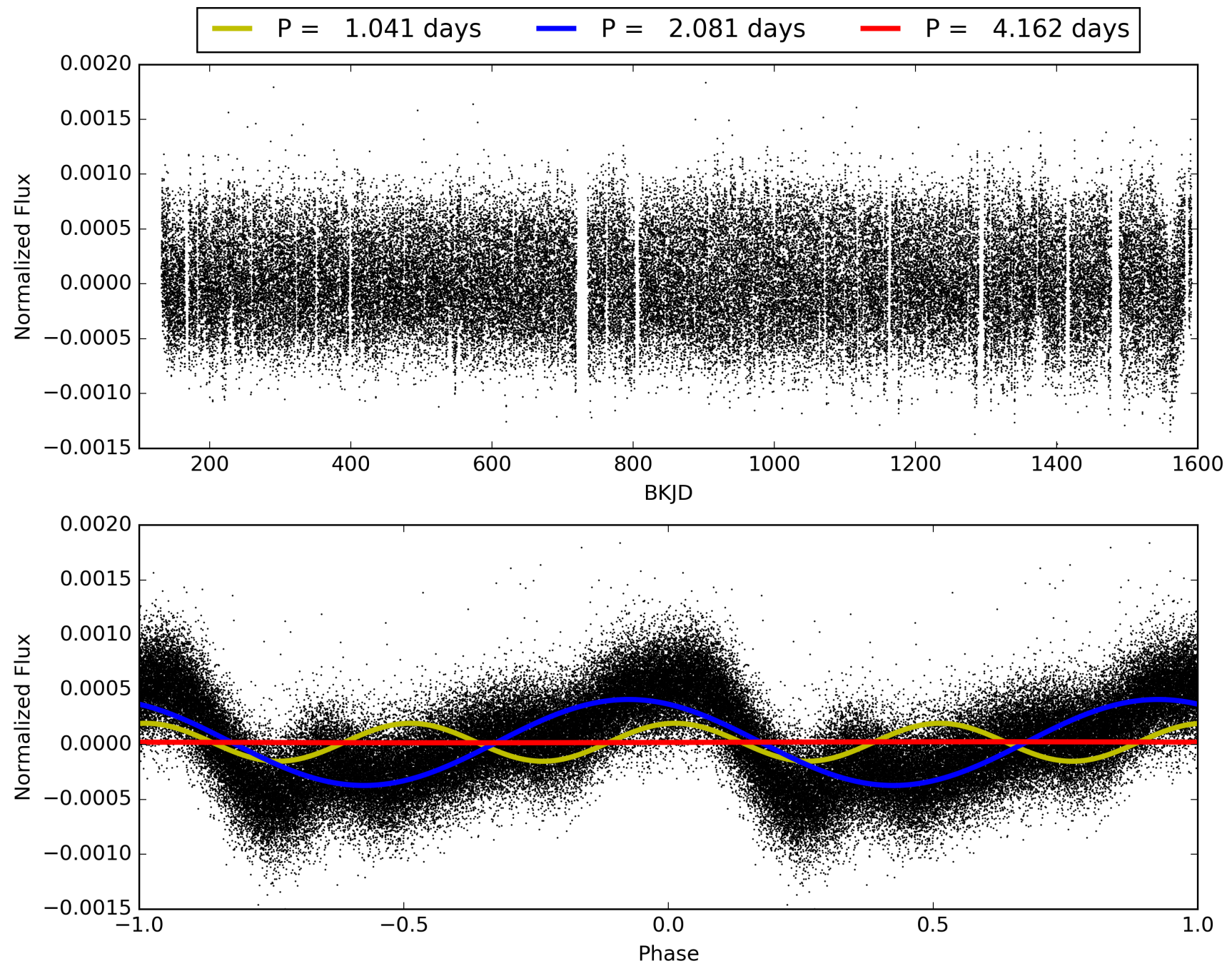
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:55:25 Z

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

TCE 007364845-01, PDC Light Curves

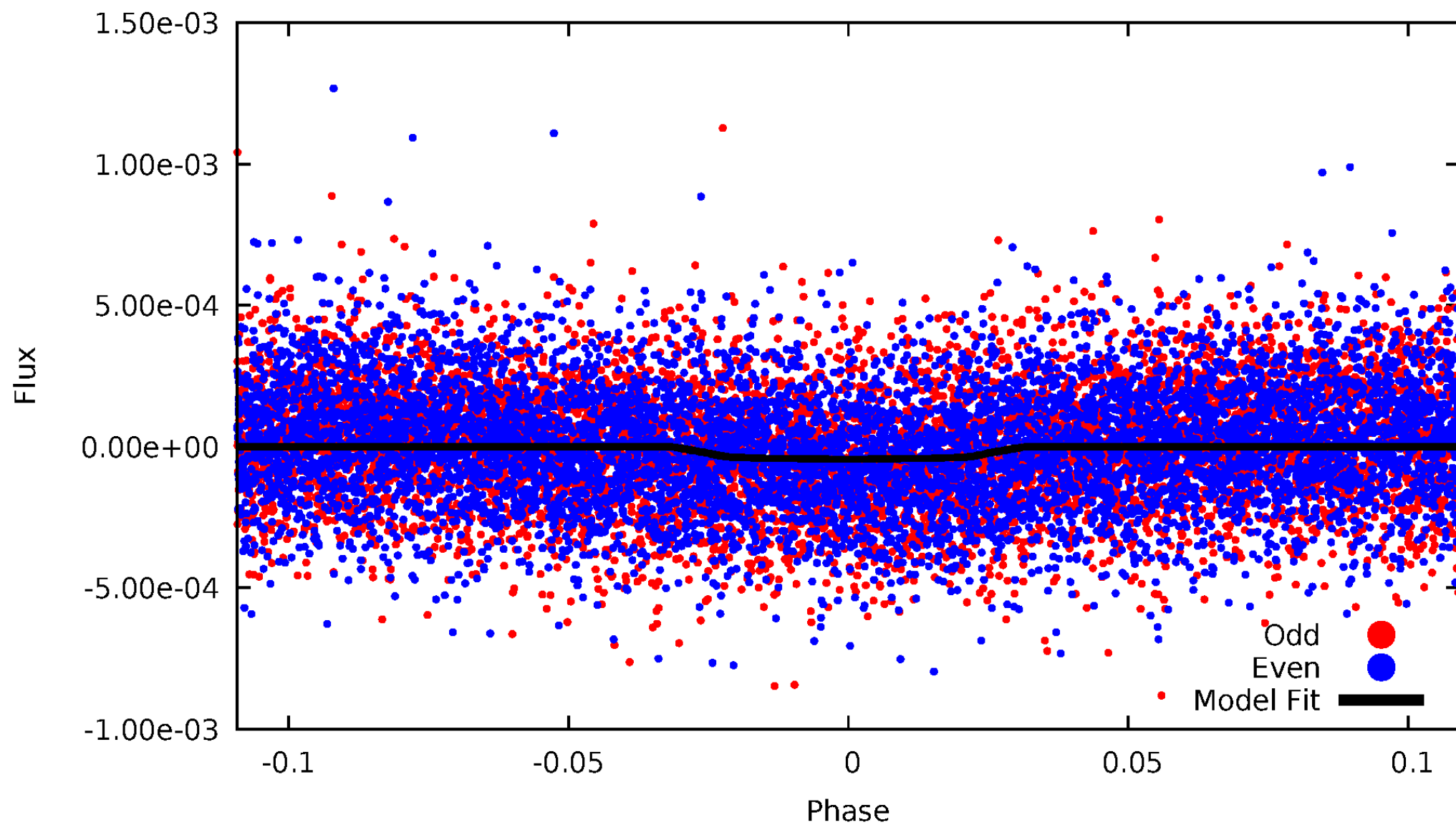


TCE 007364845-01



DV Odd/Even

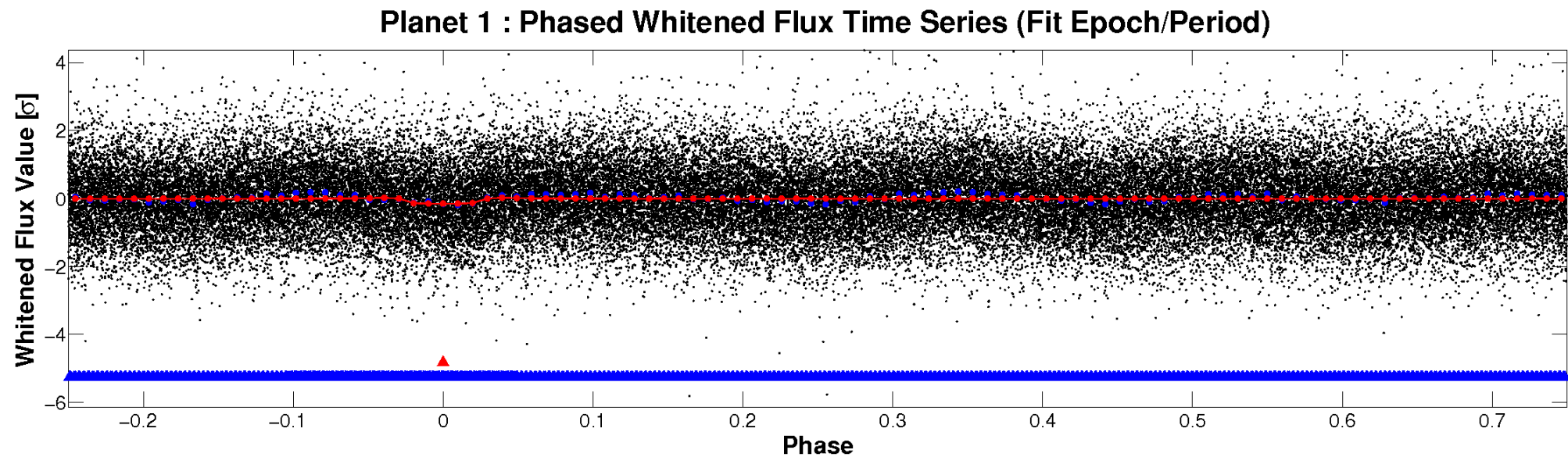
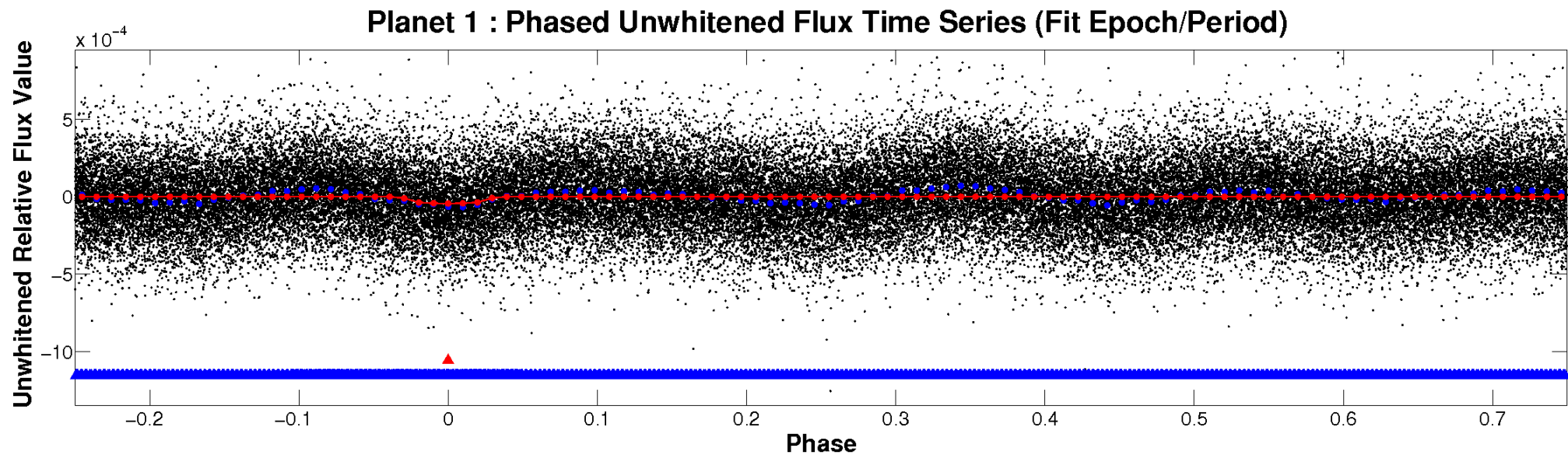
TCE 007364845-01



ALT Odd/Even

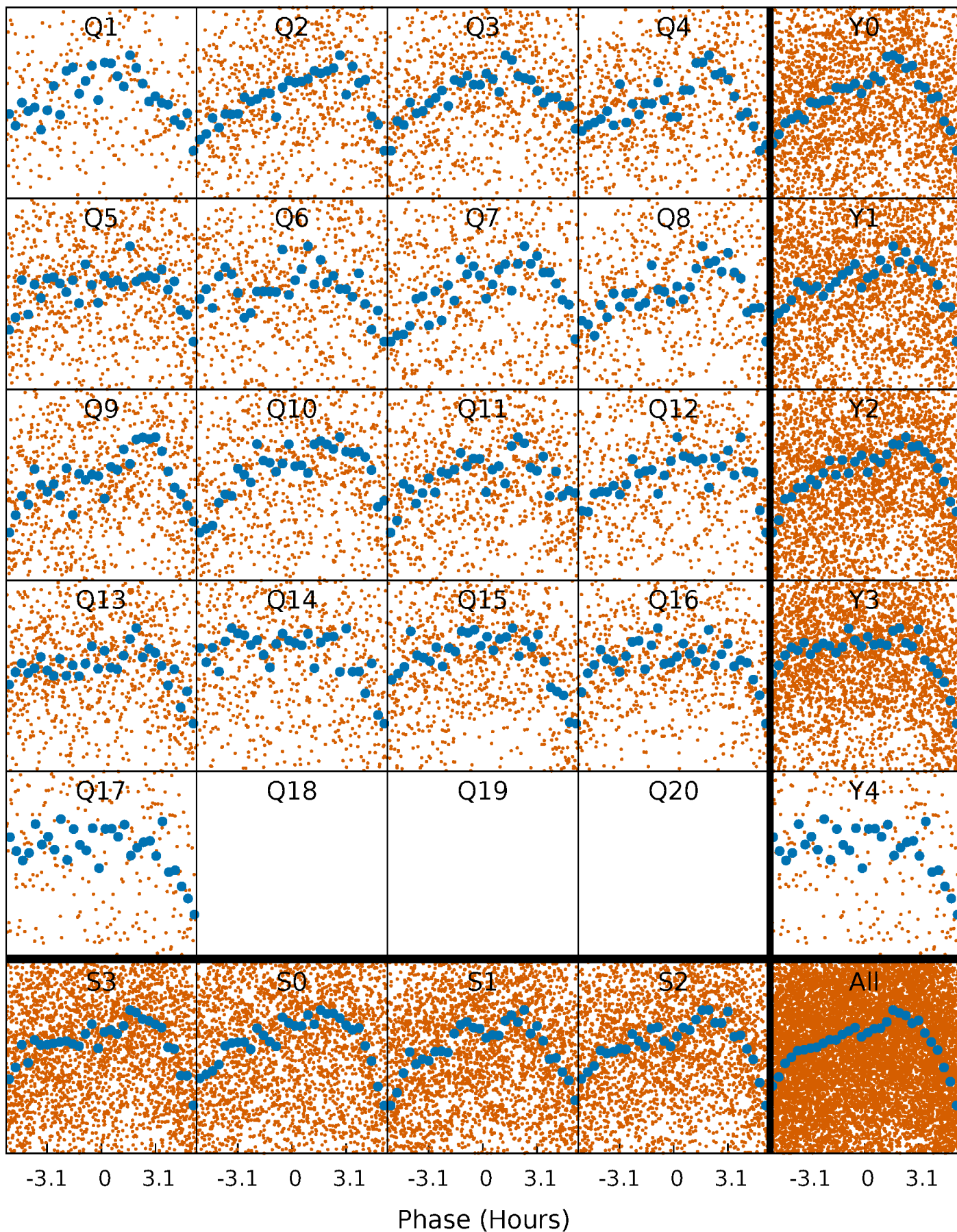
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve



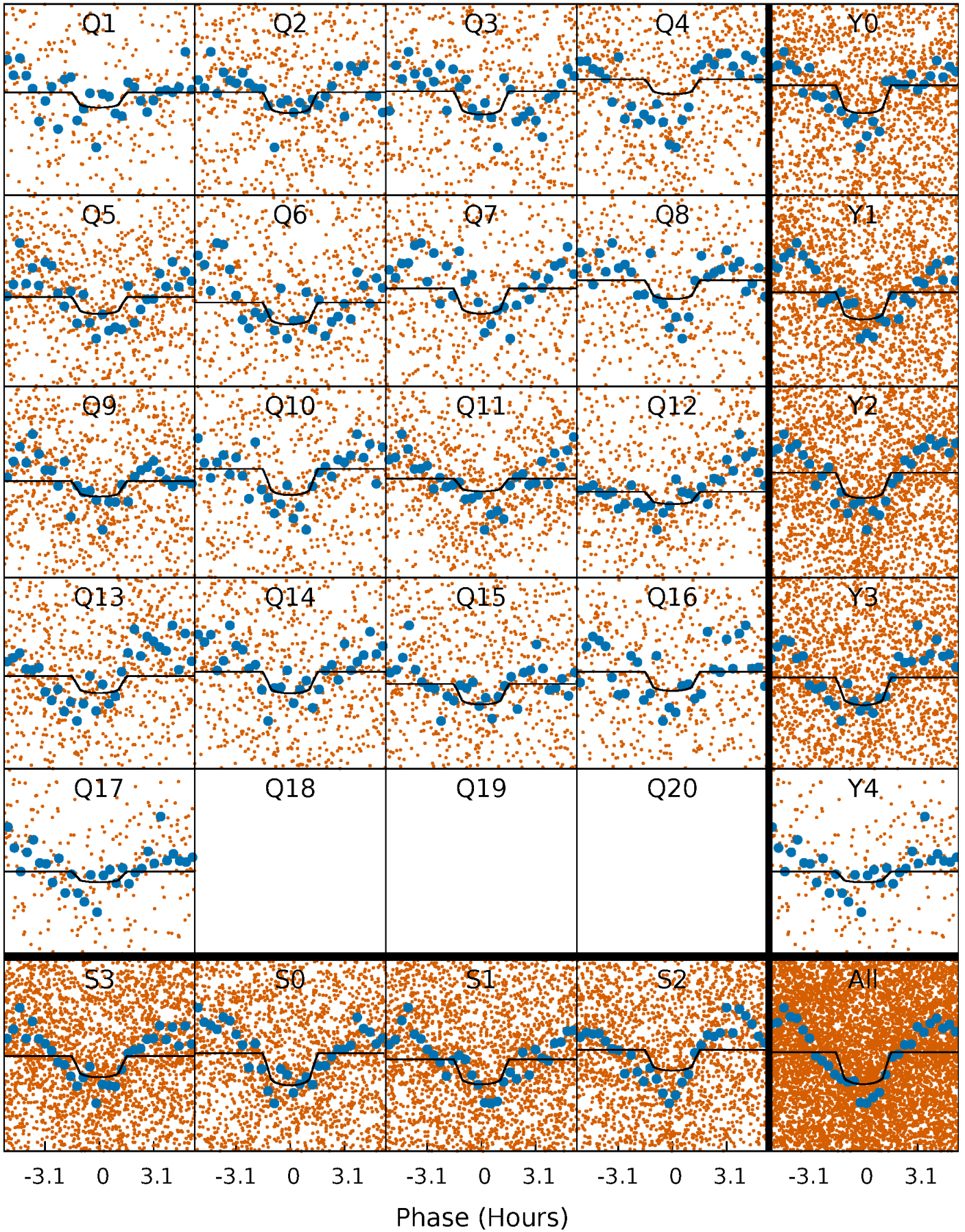
PDC Quarter-Phased Transit Curves

TCE 007364845-01 P= 2.081212 Days $T_0=132.493362$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007364845-01 P= 2.081212 Days $T_0=132.493362$ (BKJD)

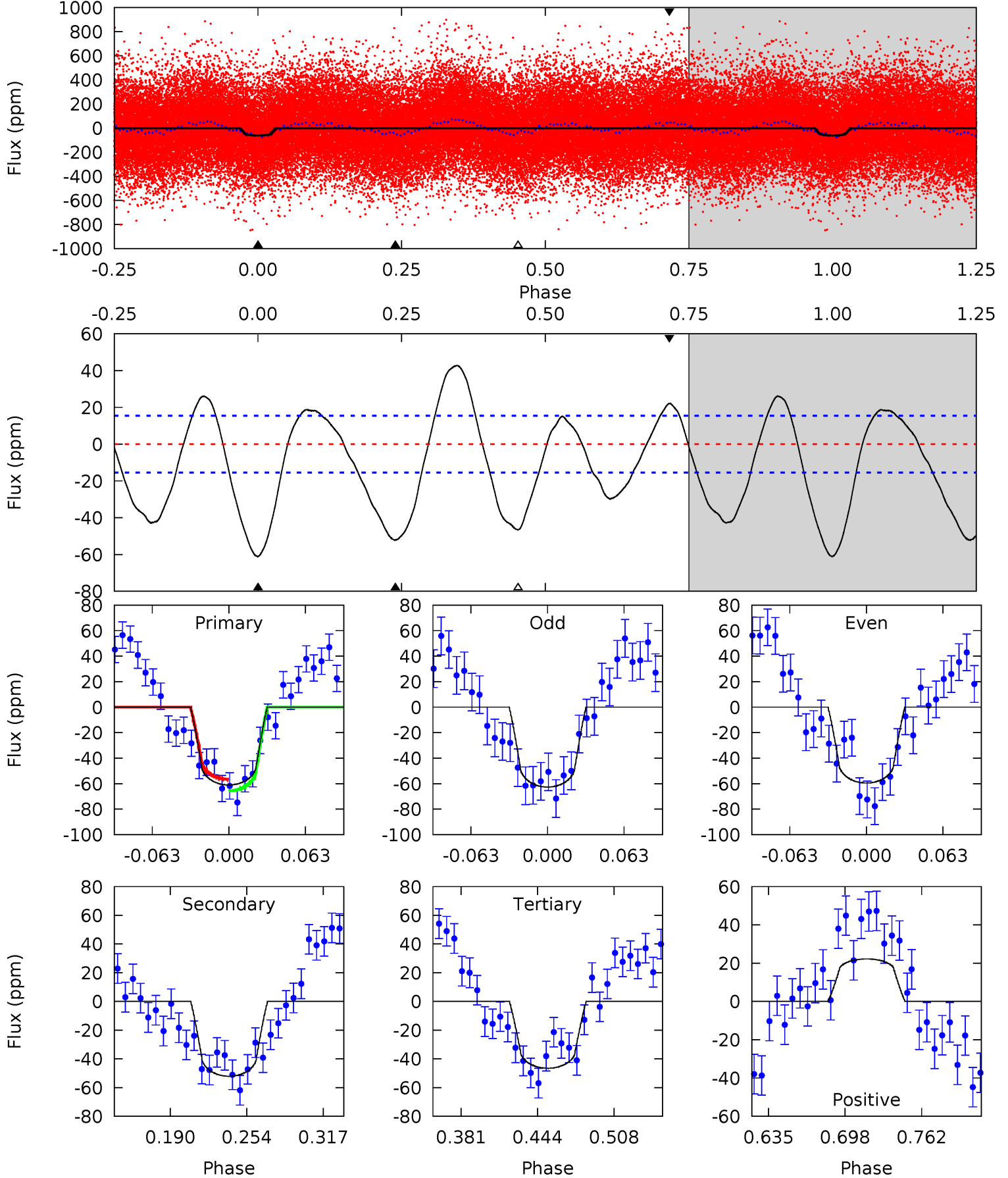


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007364845-01, P = 2.081212 Days, E = 130.412150 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	15.7	14.0	6.70	4.66	1.86	7.10	4.39	11.7	1.69	9.02	0.48	1.04	0.41	1.37



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007364845

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6770^{+81}_{-81}	$3.983^{+0.174}_{-0.116}$	$-0.020^{+0.150}_{-0.150}$	$2.075^{+0.412}_{-0.453}$	$1.513^{+0.143}_{-0.143}$	$0.238^{+0.204}_{-0.087}$
	+1%/-1%	+4%/-3%	+750%/-750%	+20%/-22%	+9%/-9%	+86%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 007364845-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-52 ± 3	$1.39^{+0.47}_{-0.40}$	3125^{+152}_{-174}	7262^{+1706}_{-974}	20^{+20}_{-9}
Alt.	N/A	N/A	N/A	N/A	N/A

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

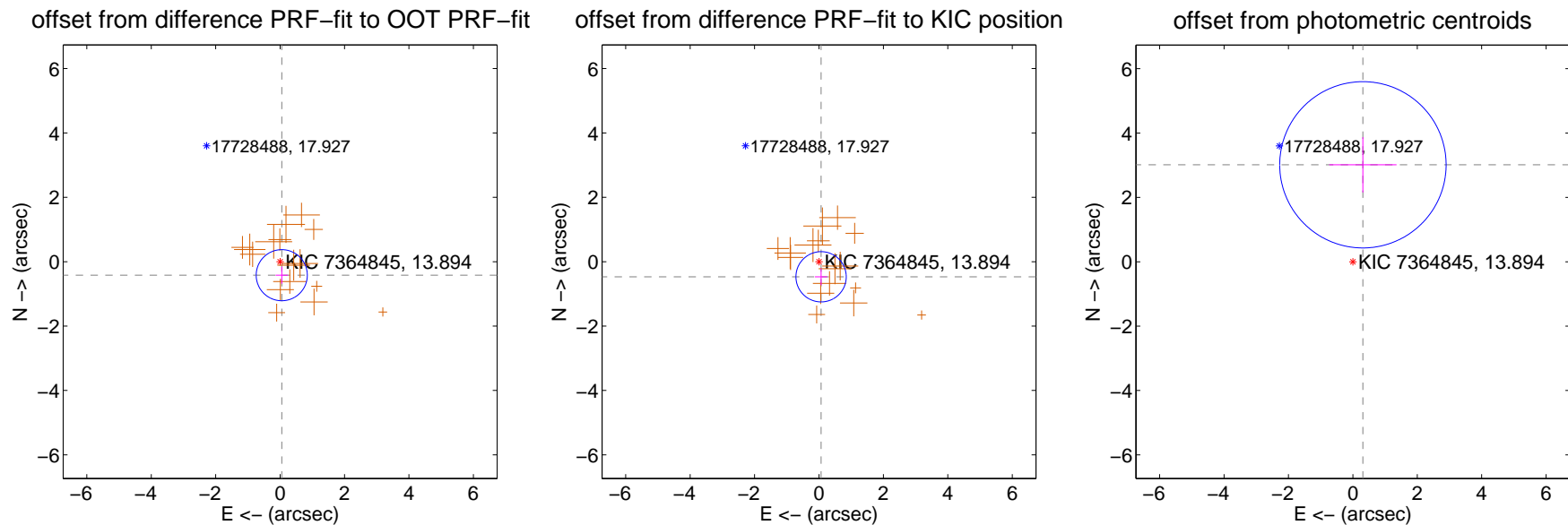
DV Centroid Data

Supplemental centroid analysis for 007364845-01. Kepler magnitude: 13.89. Transit SNR 8.06

There are 0 quarters with good PRF difference image offsets

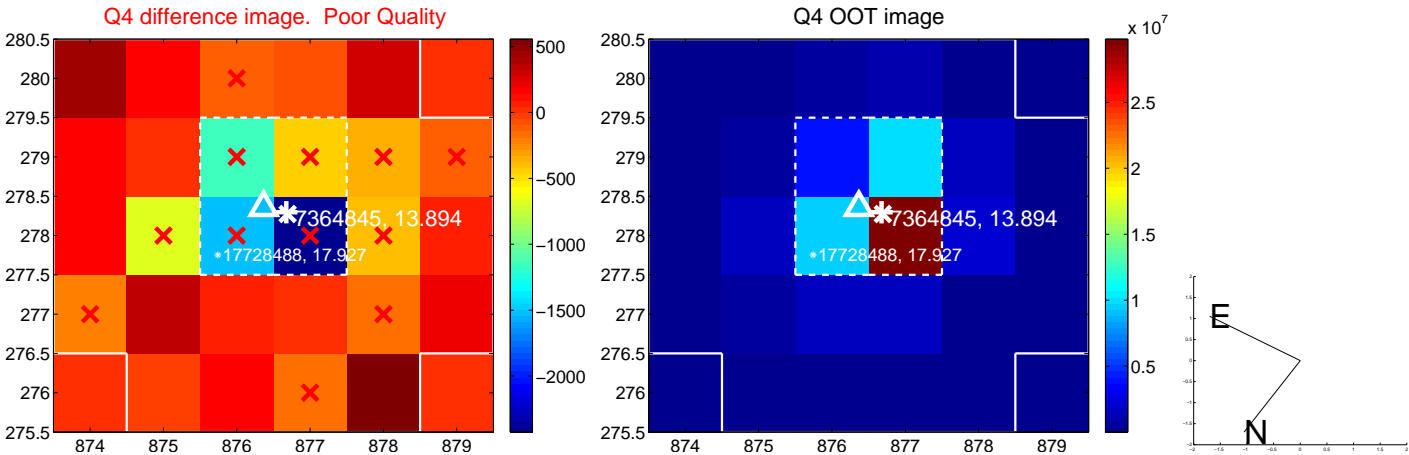
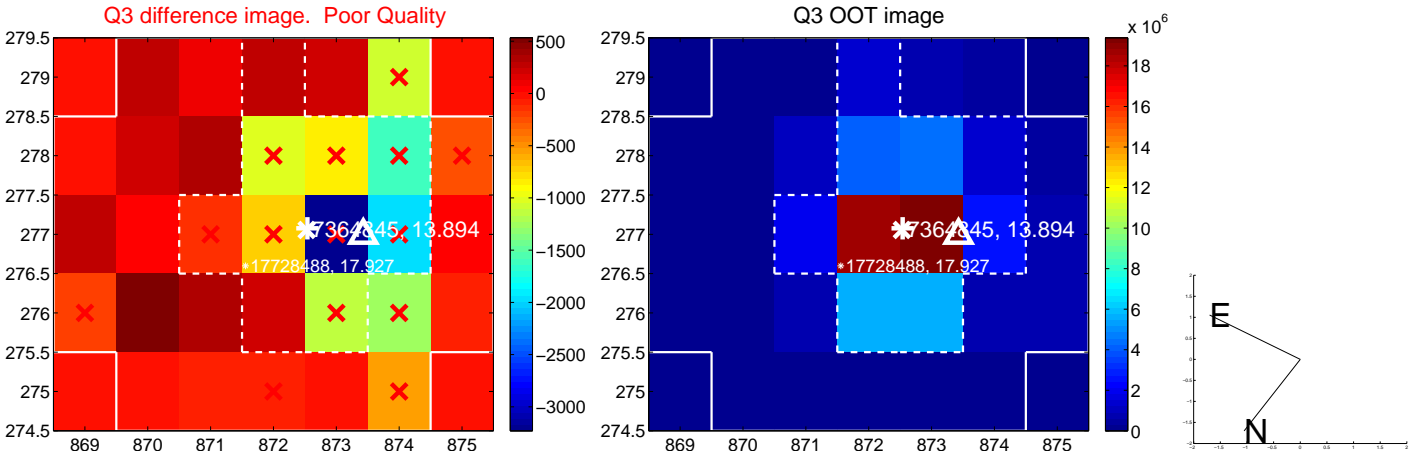
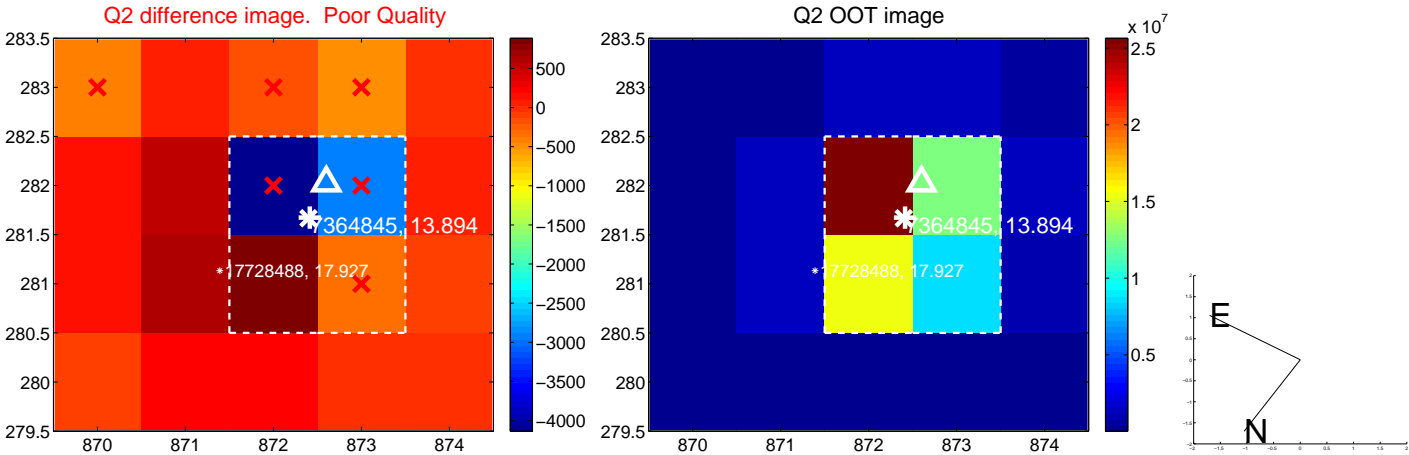
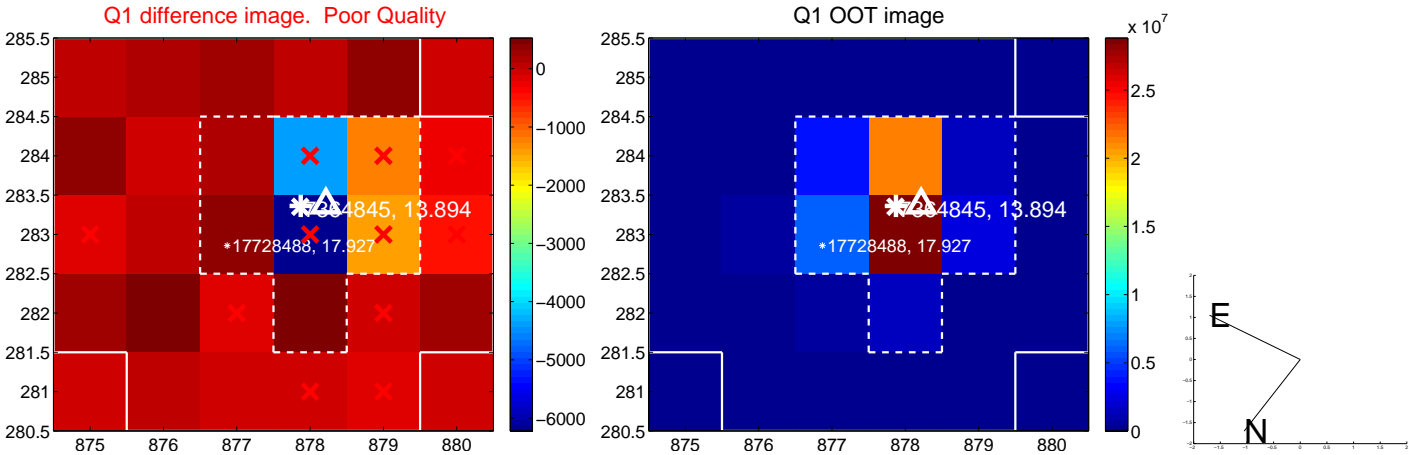
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.422 ± 0.265	1.60	-0.051 ± 0.191	-0.419 ± 0.265
PRF-fit source offset from KIC position	0.473 ± 0.260	1.82	-0.065 ± 0.191	-0.469 ± 0.261
photometric centroid source offset	3.03 ± 0.86	3.52	-0.31 ± 1.05	3.01 ± 0.86

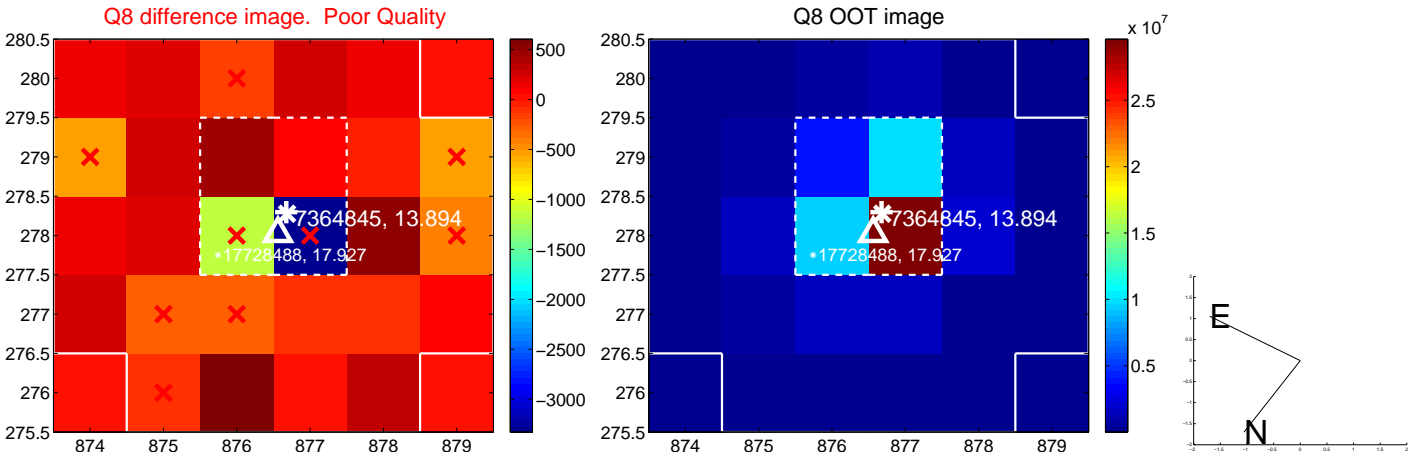
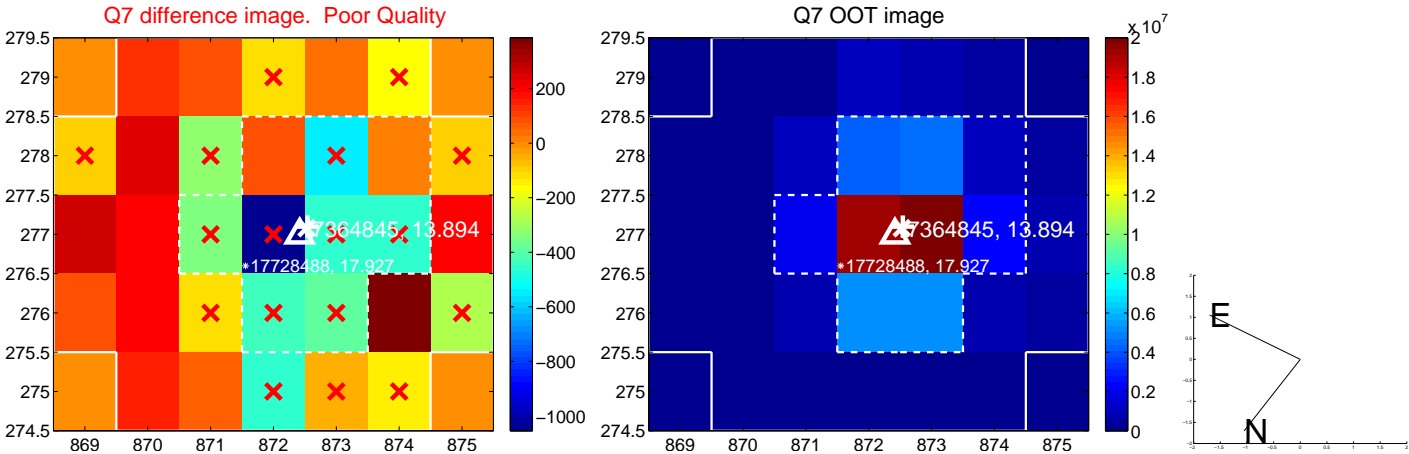
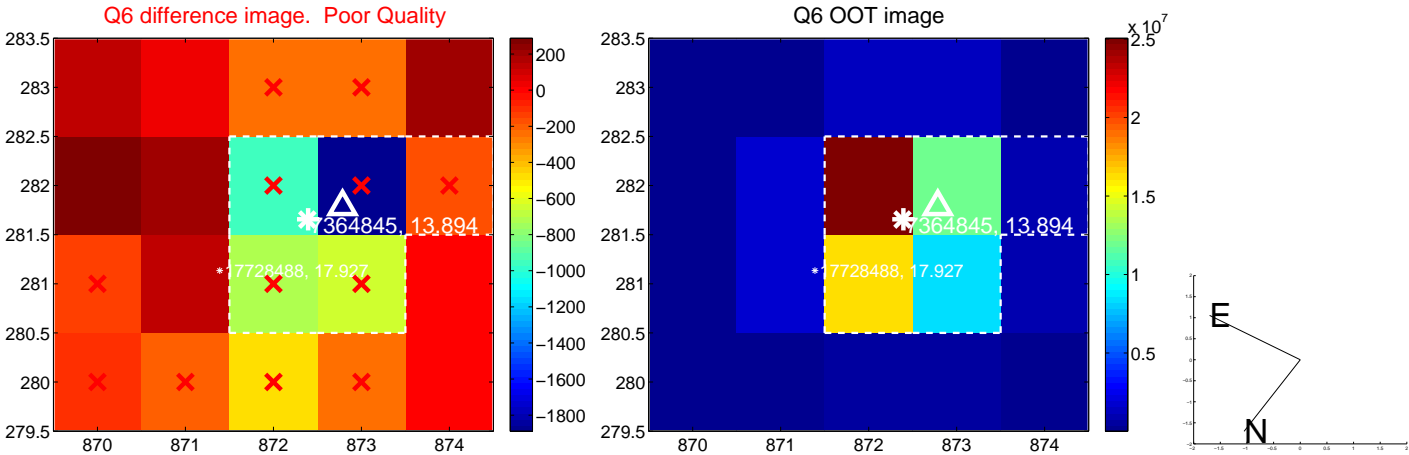
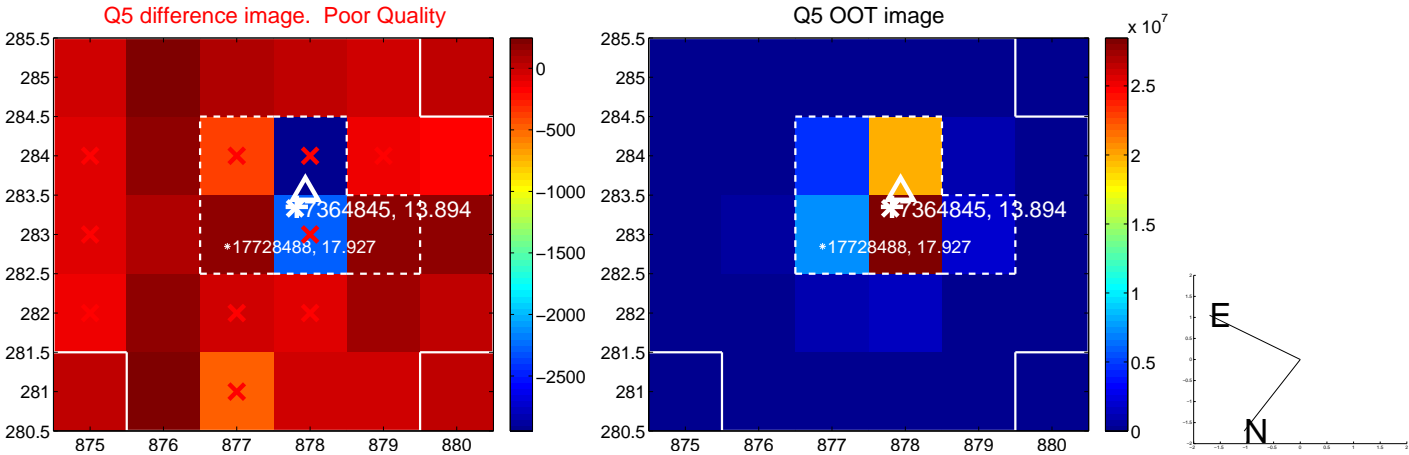


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

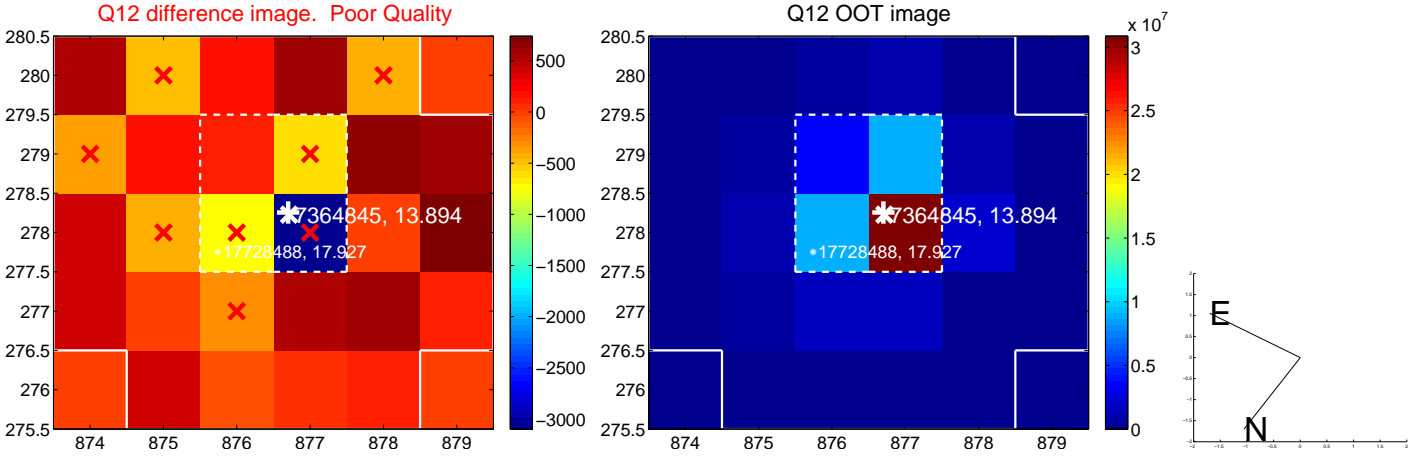
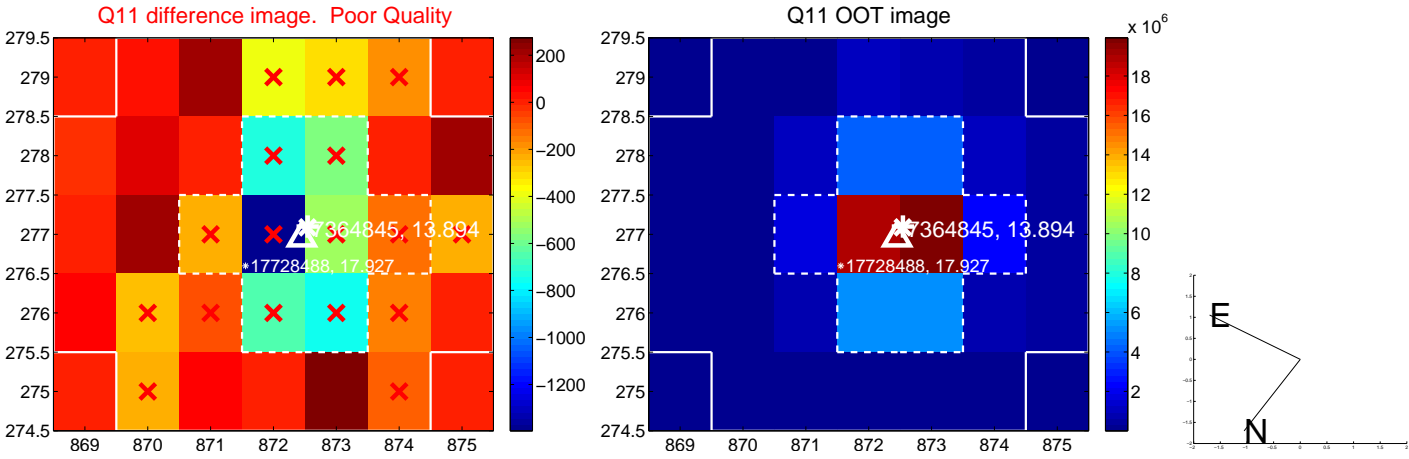
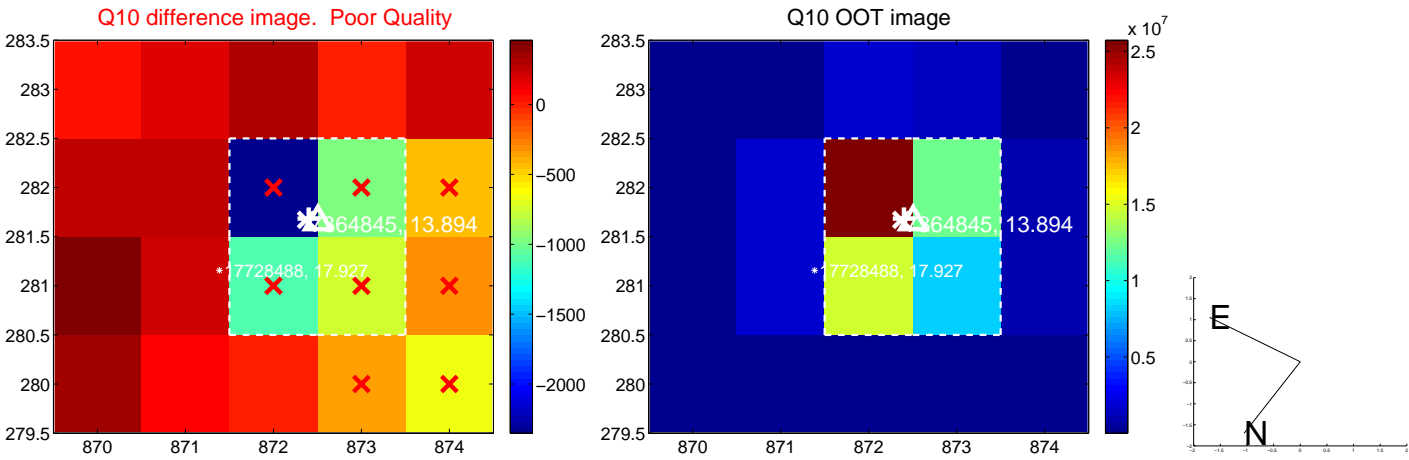
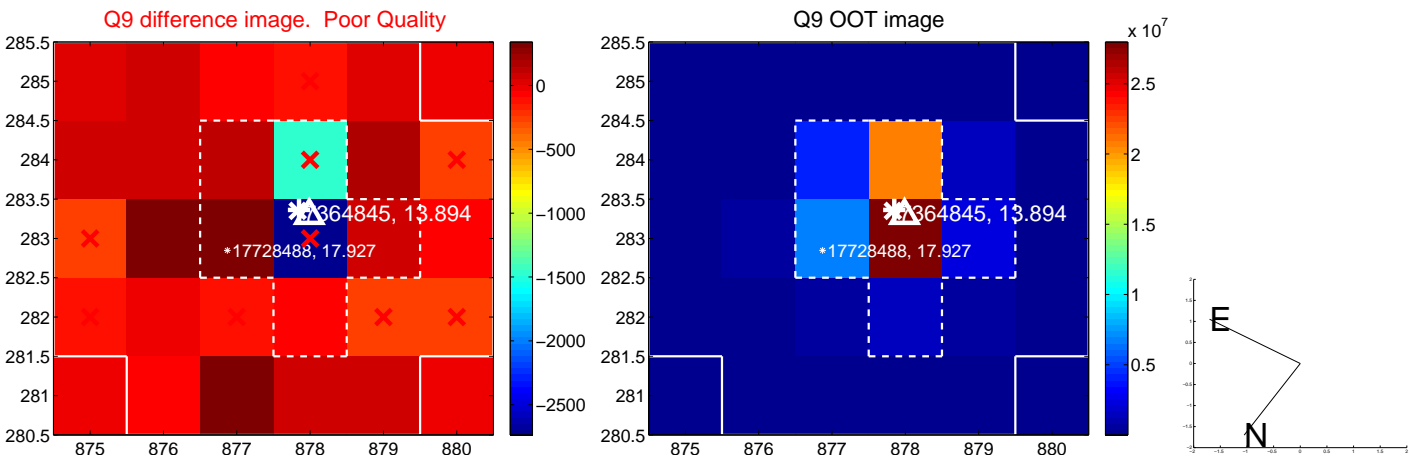
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



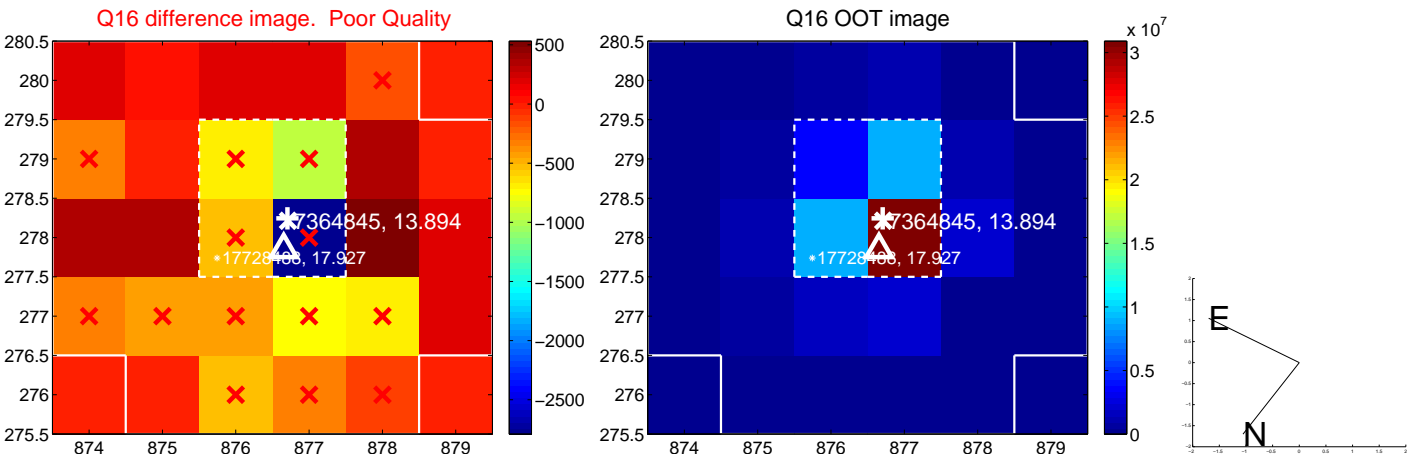
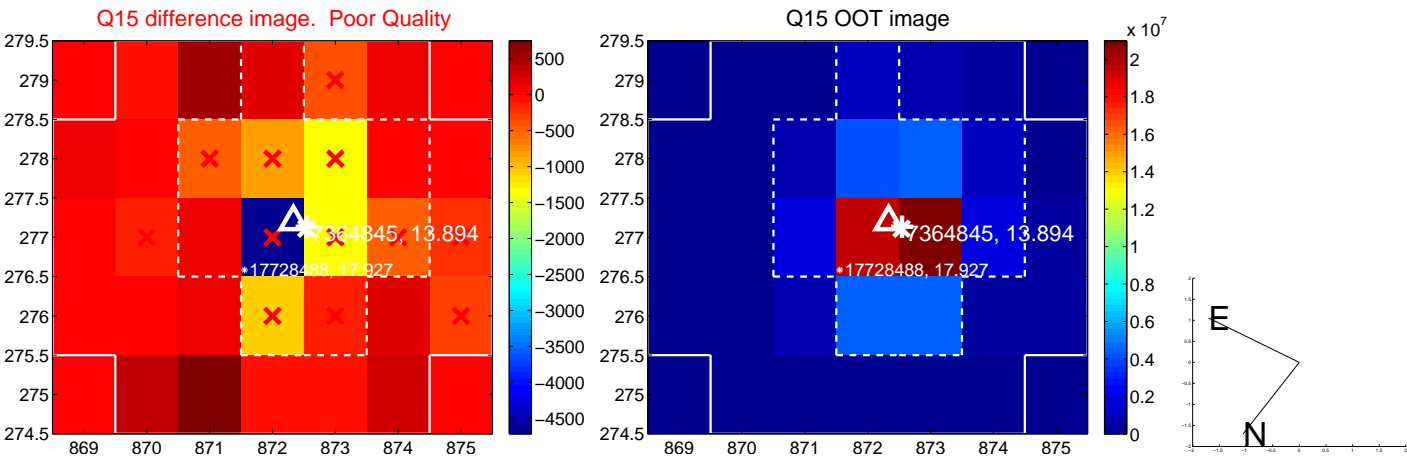
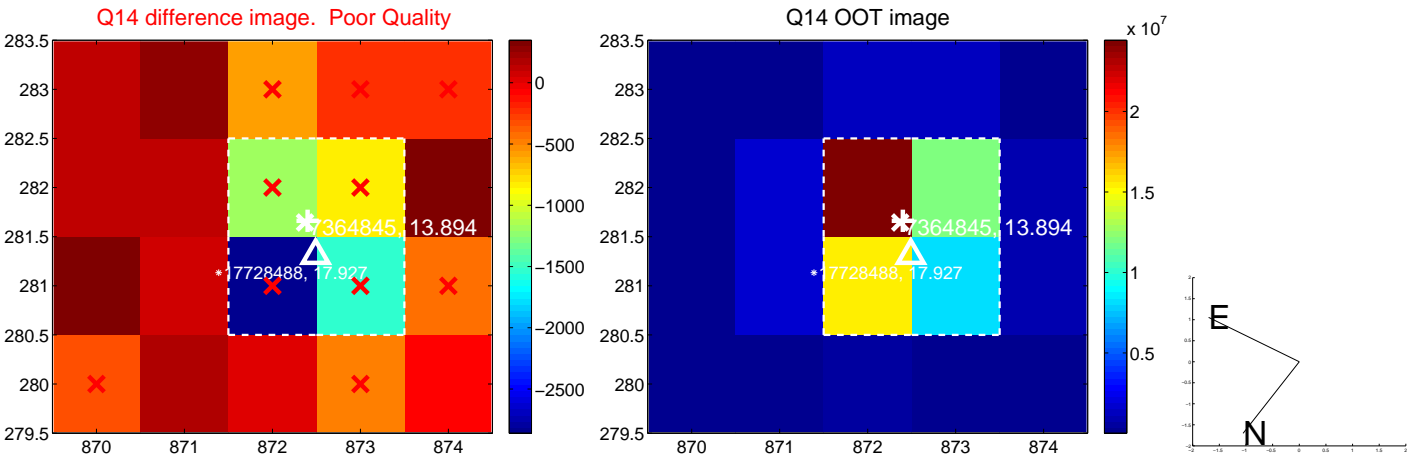
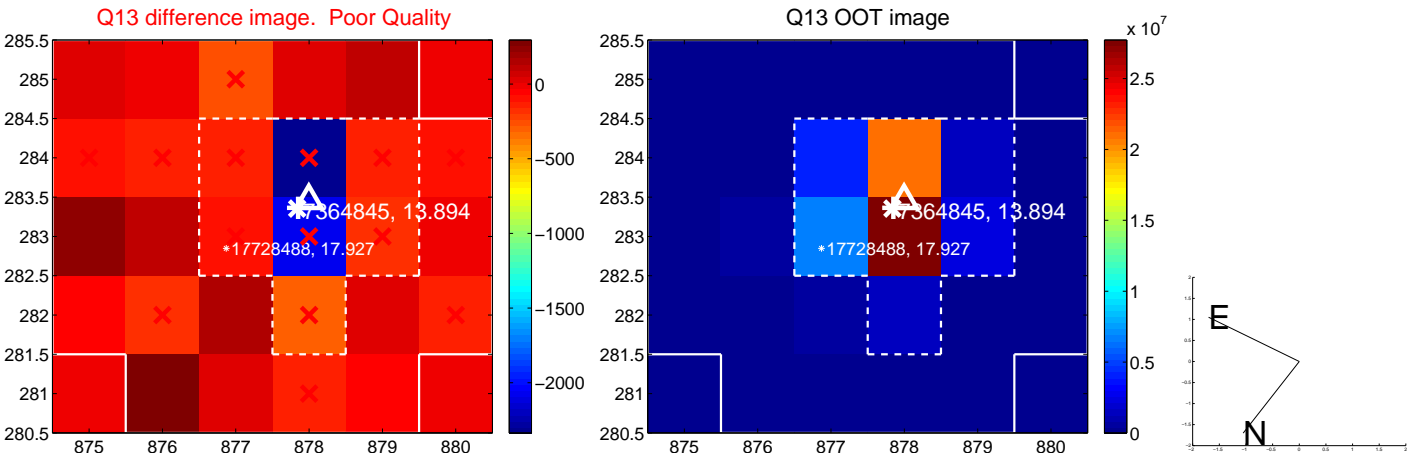
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



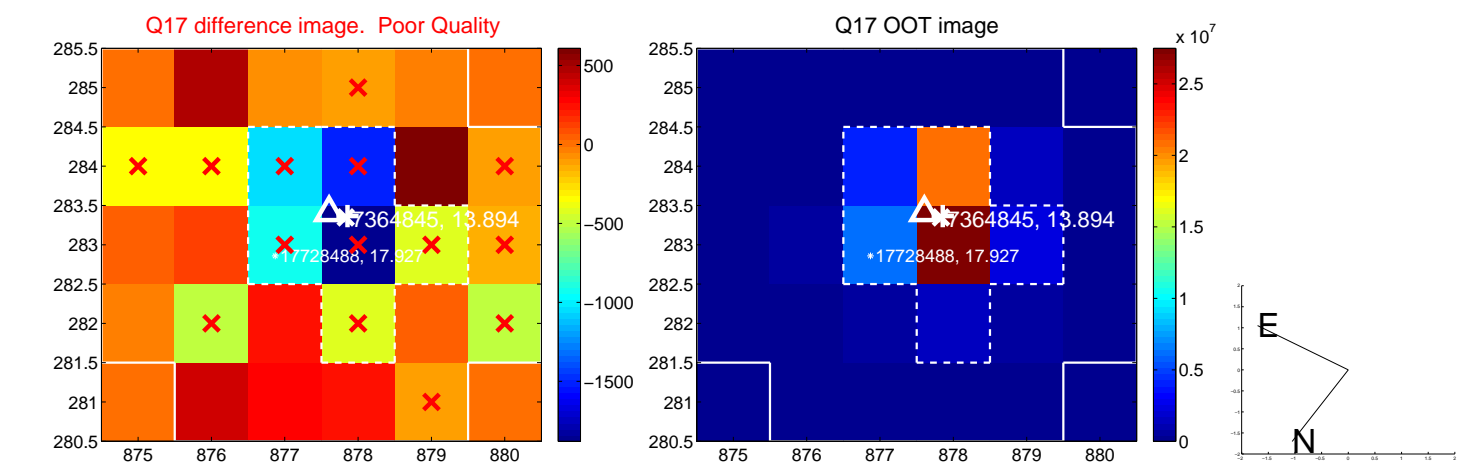
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



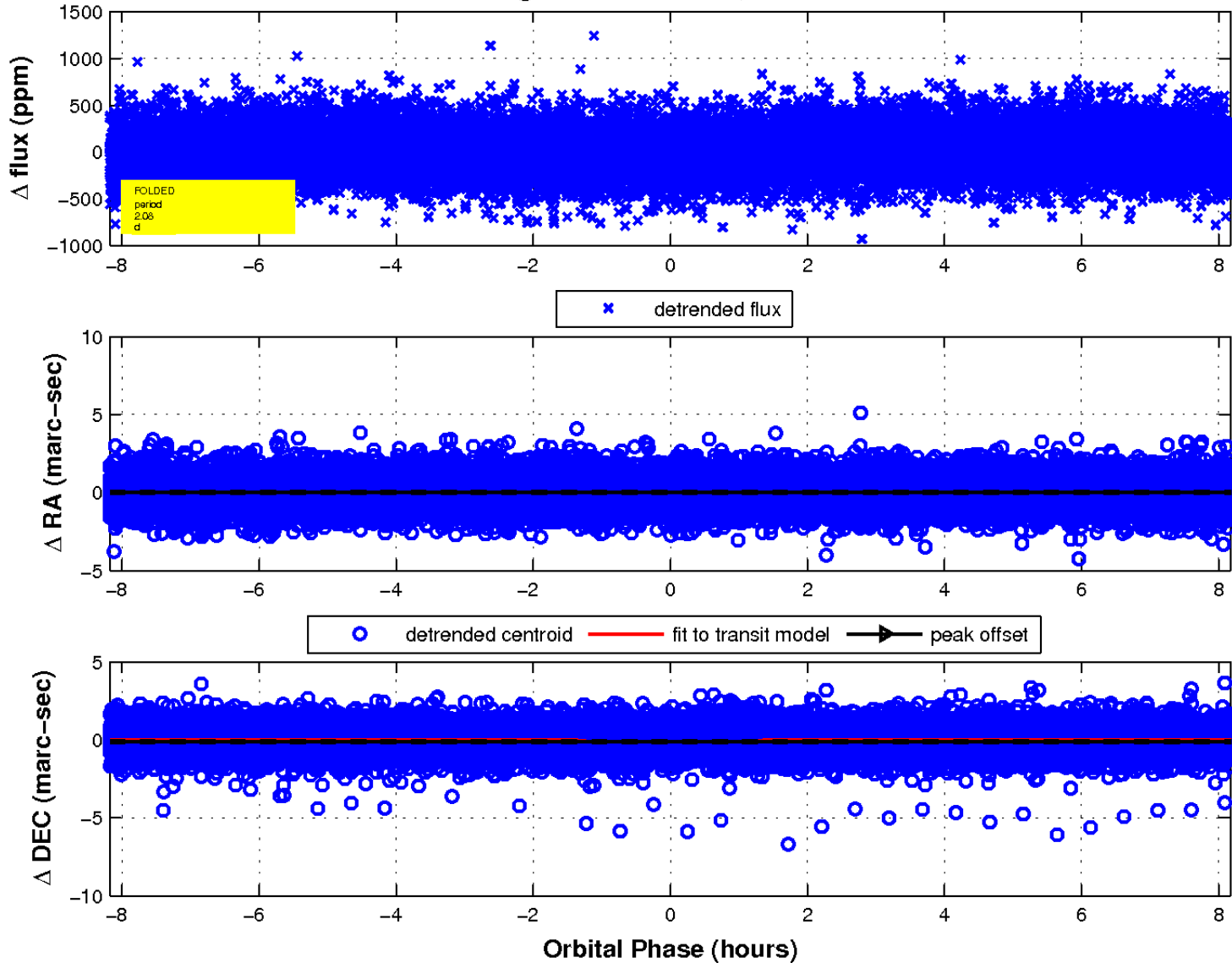
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

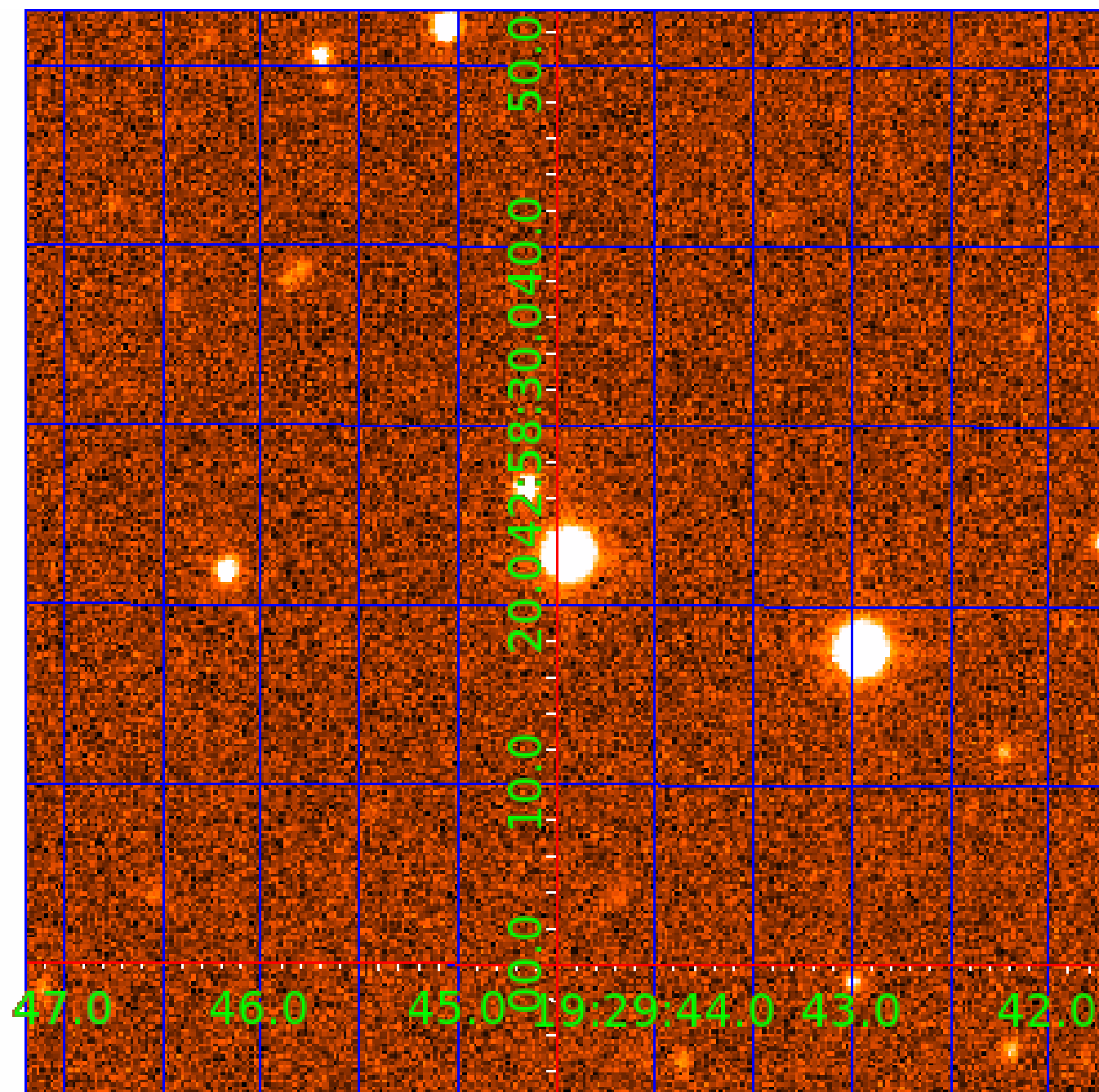


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 007364845

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})
007364845-01	OBS	No	2.081212	132.493362	43.9	2.726	8.5	8.1	2.08	6770	1.43	6046.53
007364845-02	OBS	No	2.074833	132.593290	2.6	0.965	8.3	0.3	2.08	6770	0.34	6071.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007364845-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007364845-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT

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

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

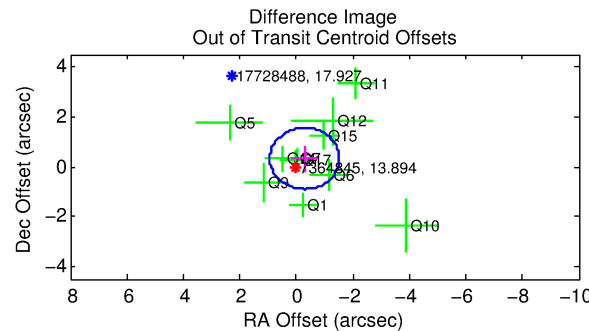
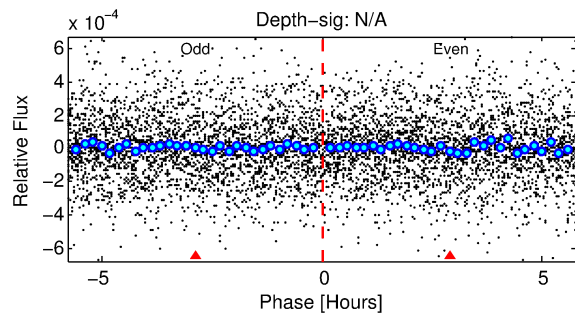
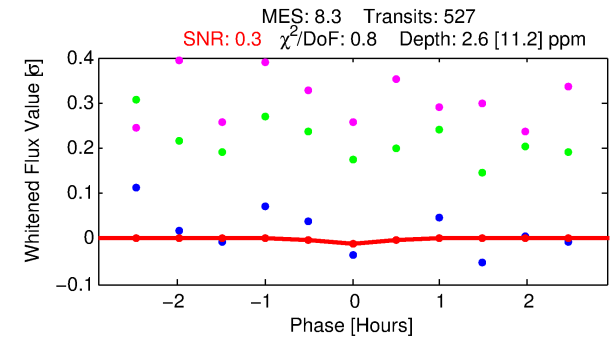
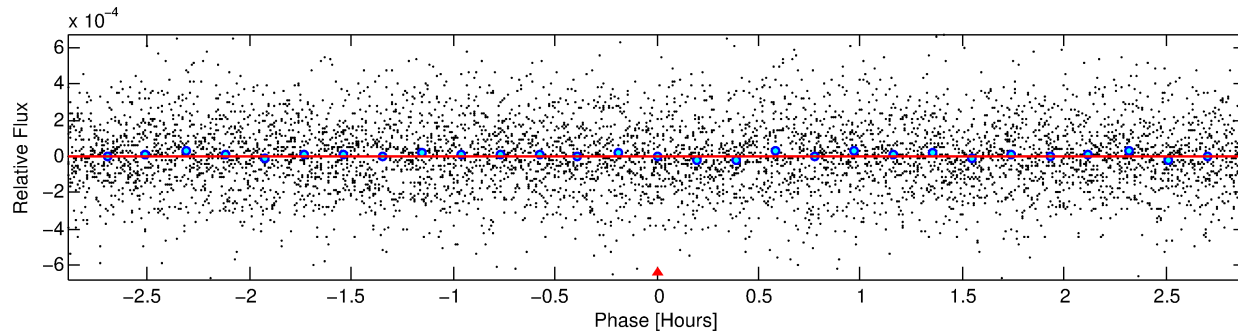
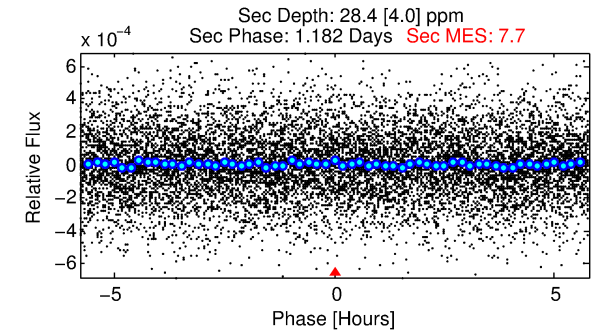
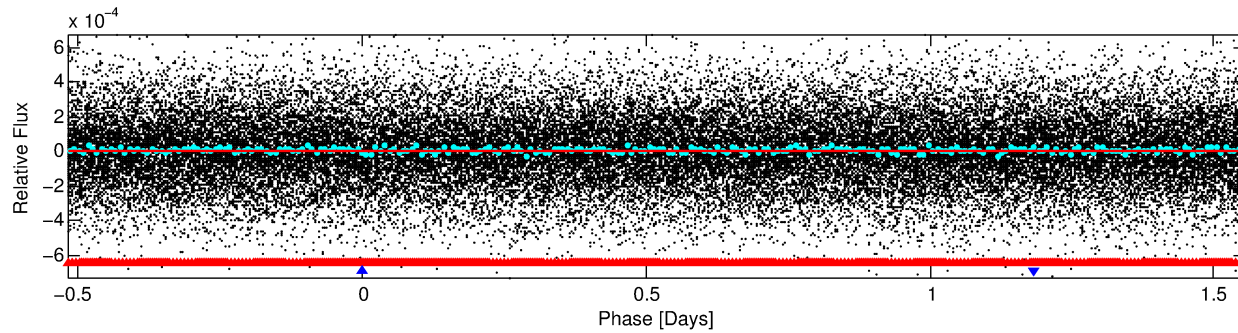
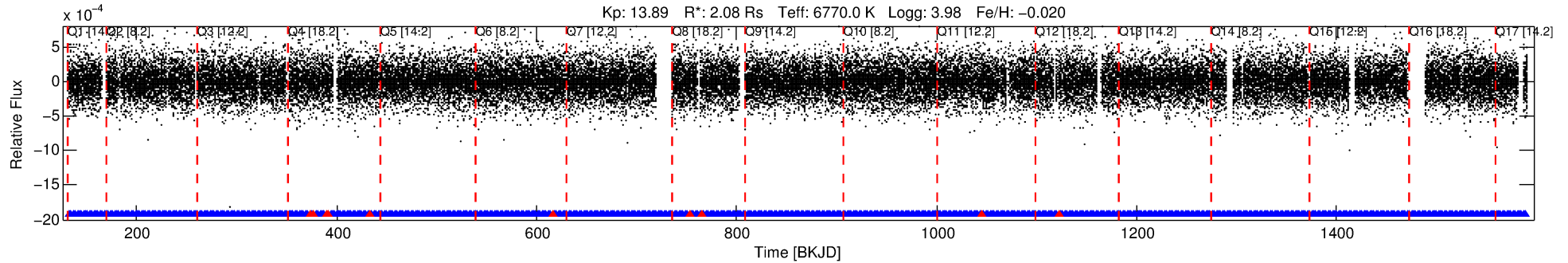
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007364845-02

No Significant Match Found

DV One-Page Summary

KIC: 7364845 Candidate: 2 of 2 Period: 2.075 d



DV Fit Results:

Period = 2.07483 [0.00035] d
Epoch = 132.5933 [0.0542] BKJD
Rp/R* = 0.0015 [0.0094]
a/R* = 15.86 [505.02]
b = 0.27 [110.66]
Seff = 6071.32 [1869.49]
Teq = 2251 [173] K
Rp = 0.34 [2.14] Re
a = 0.0365 [0.0072] AU
Ag = 176.00 [2186.21] [0.08σ]
Teffp = 12676 [39351] K [0.26σ]

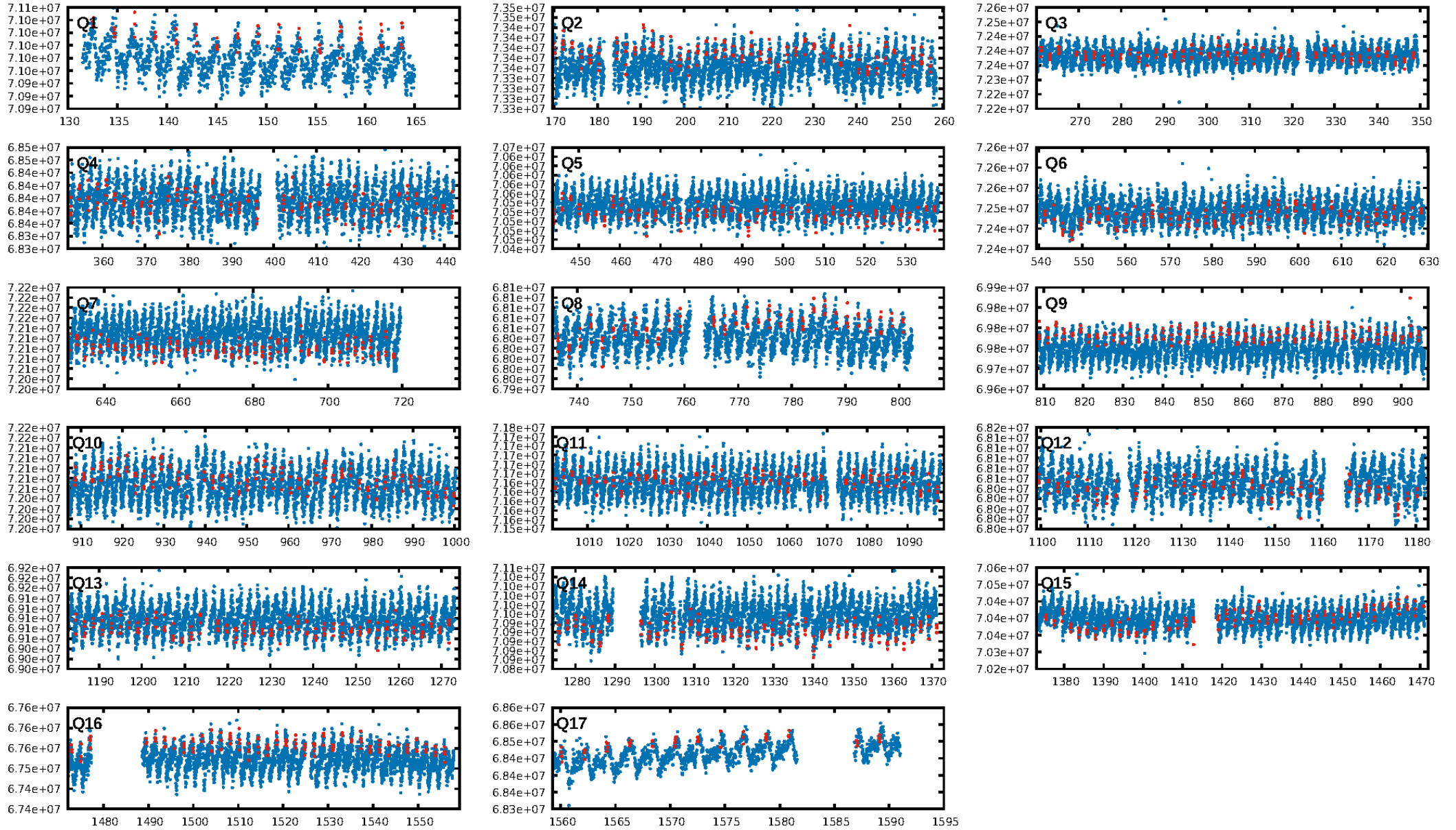
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 4.2% [0.05σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.69e-14
RollingBand-fgt: 0.98 [508/518]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.434 arcsec [1.06σ]
KicOffset-rm: 0.377 arcsec [0.95σ]
OotOffset-st: 3/3/1/4 [11]
KicOffset-st: 3/3/1/4 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 0.71 [12/17]

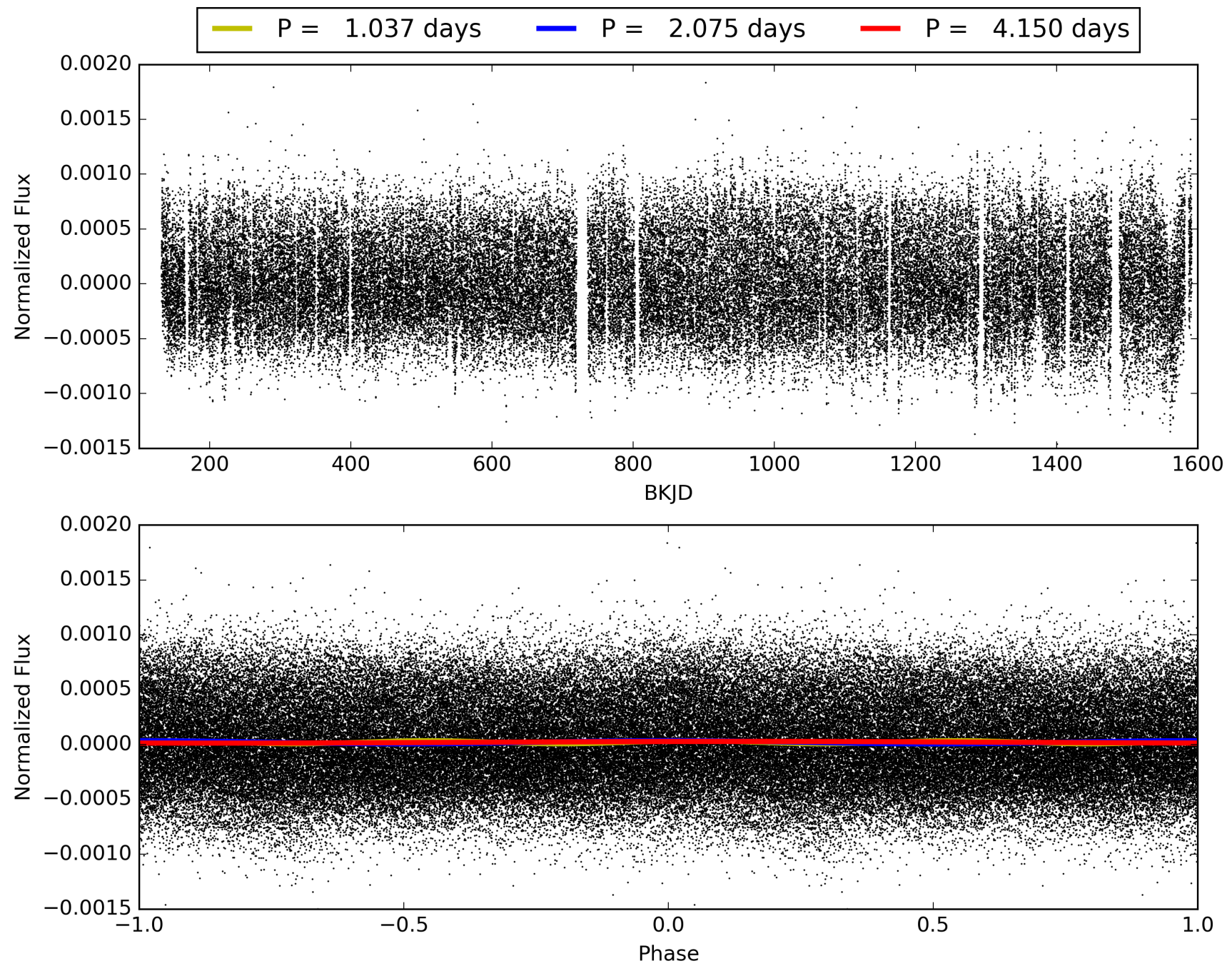
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:55:34 Z

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

TCE 007364845-02, PDC Light Curves

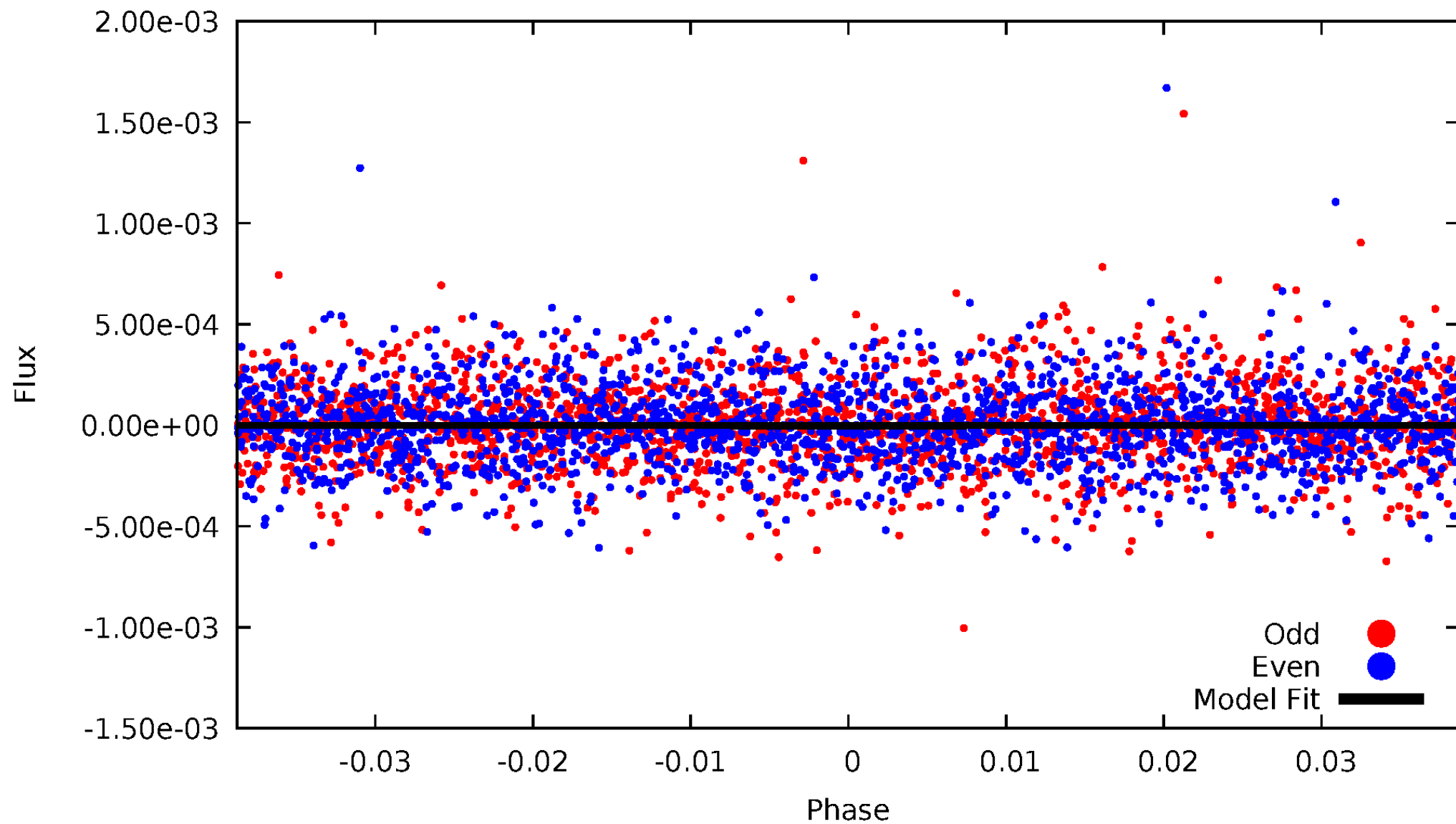


TCE 007364845-02



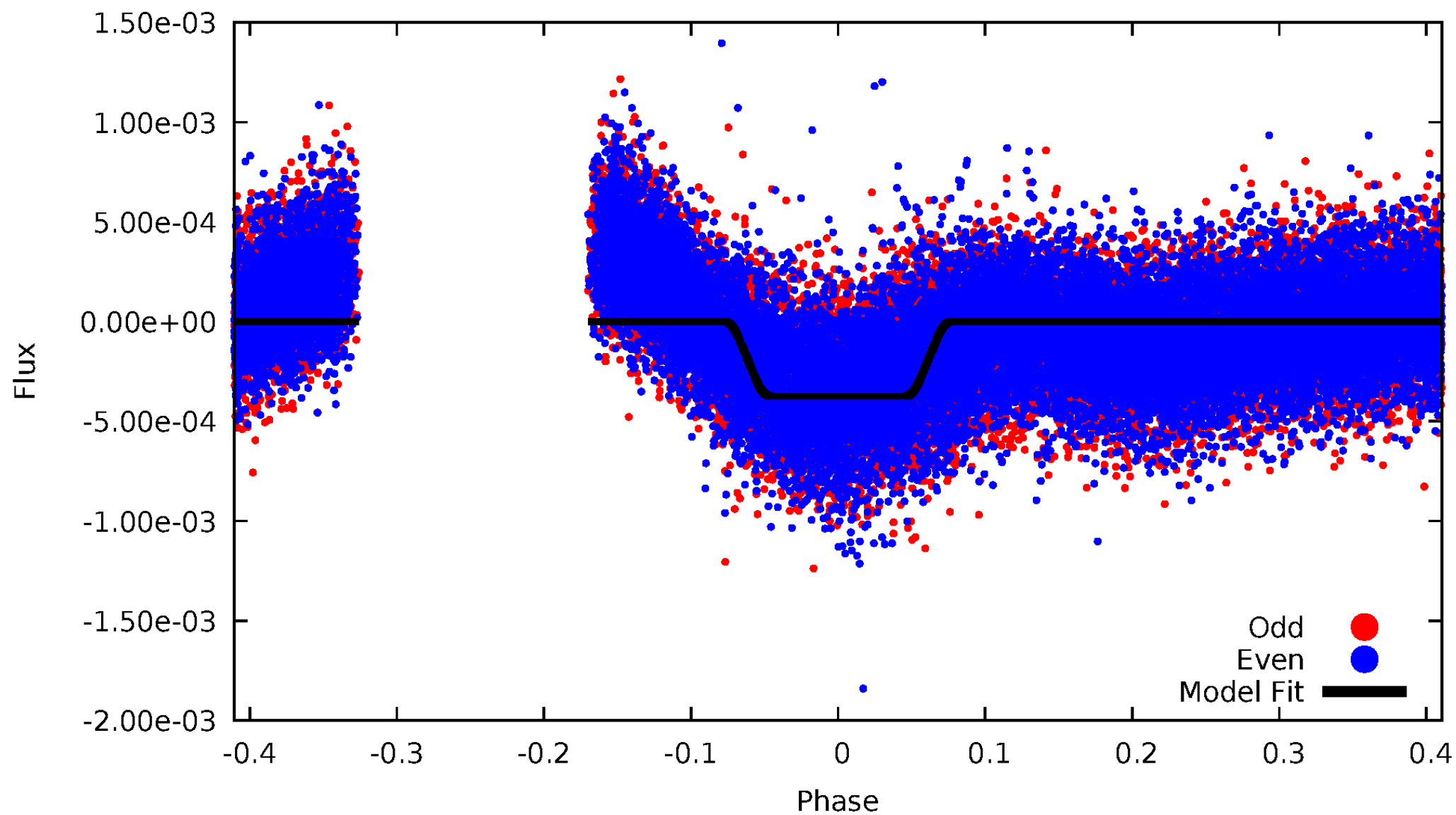
DV Odd/Even

TCE 007364845-02



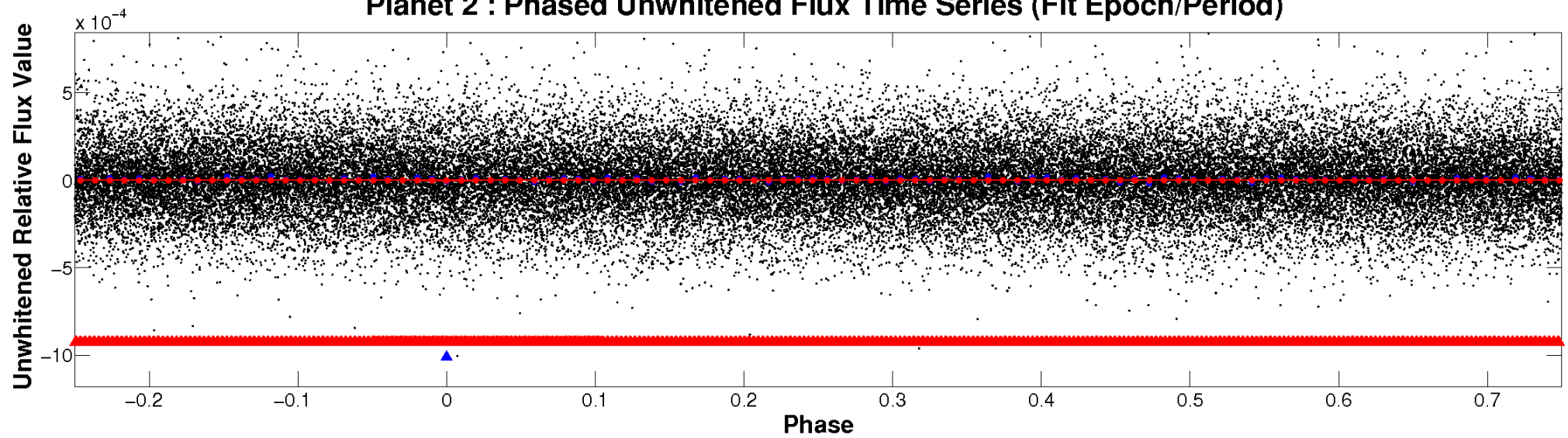
ALT Odd/Even

TCE 007364845-02

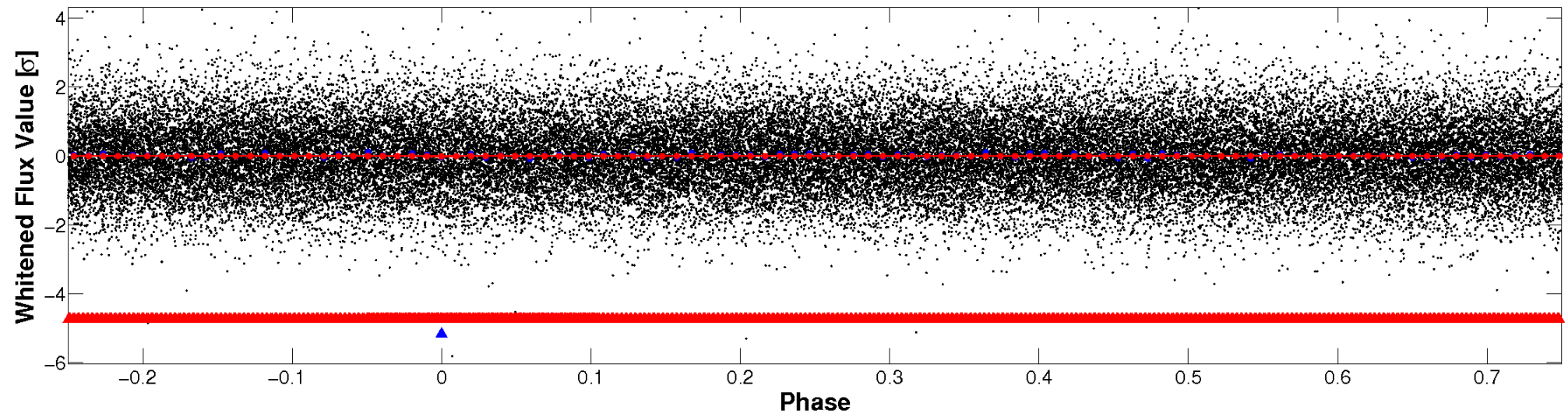


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

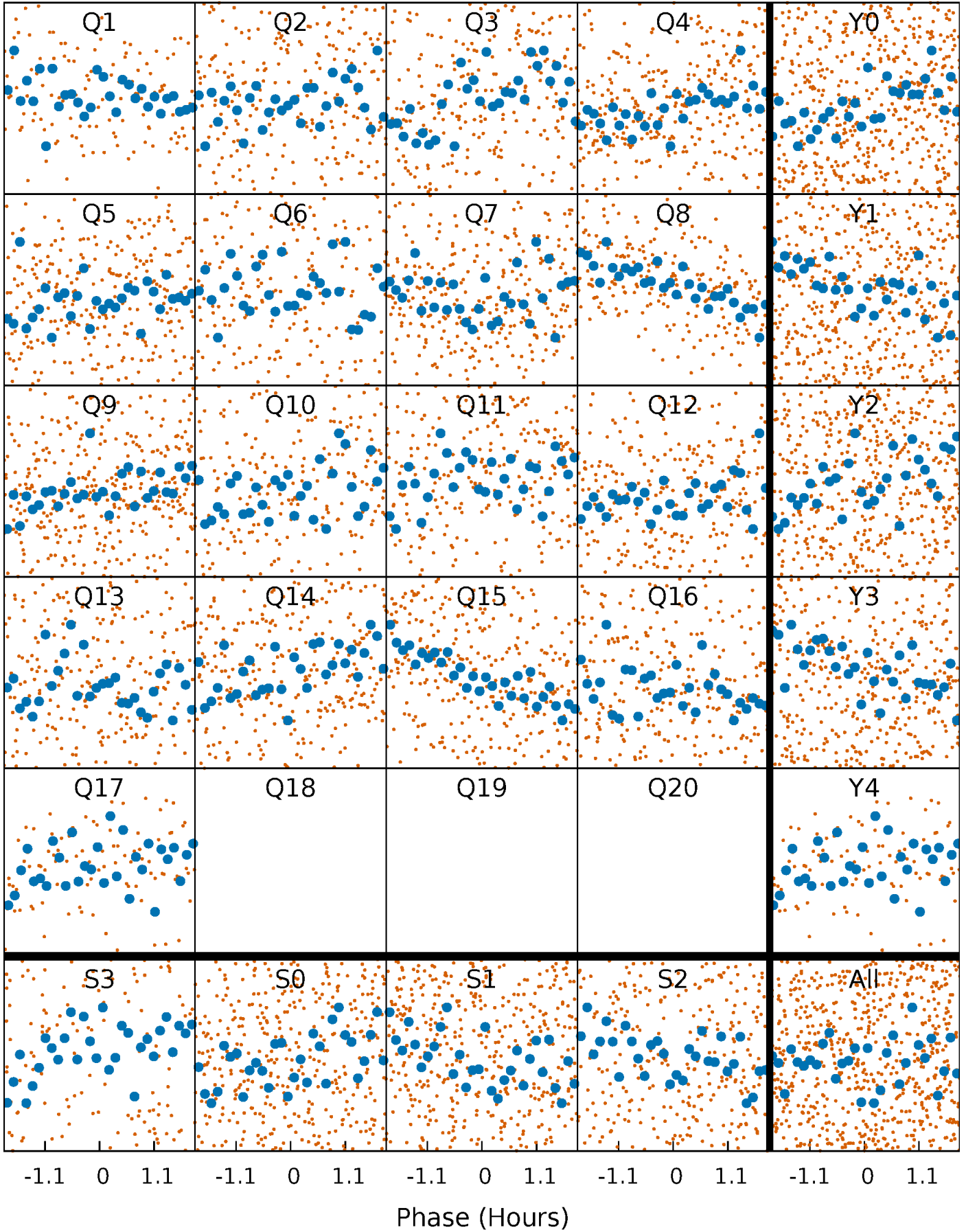


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



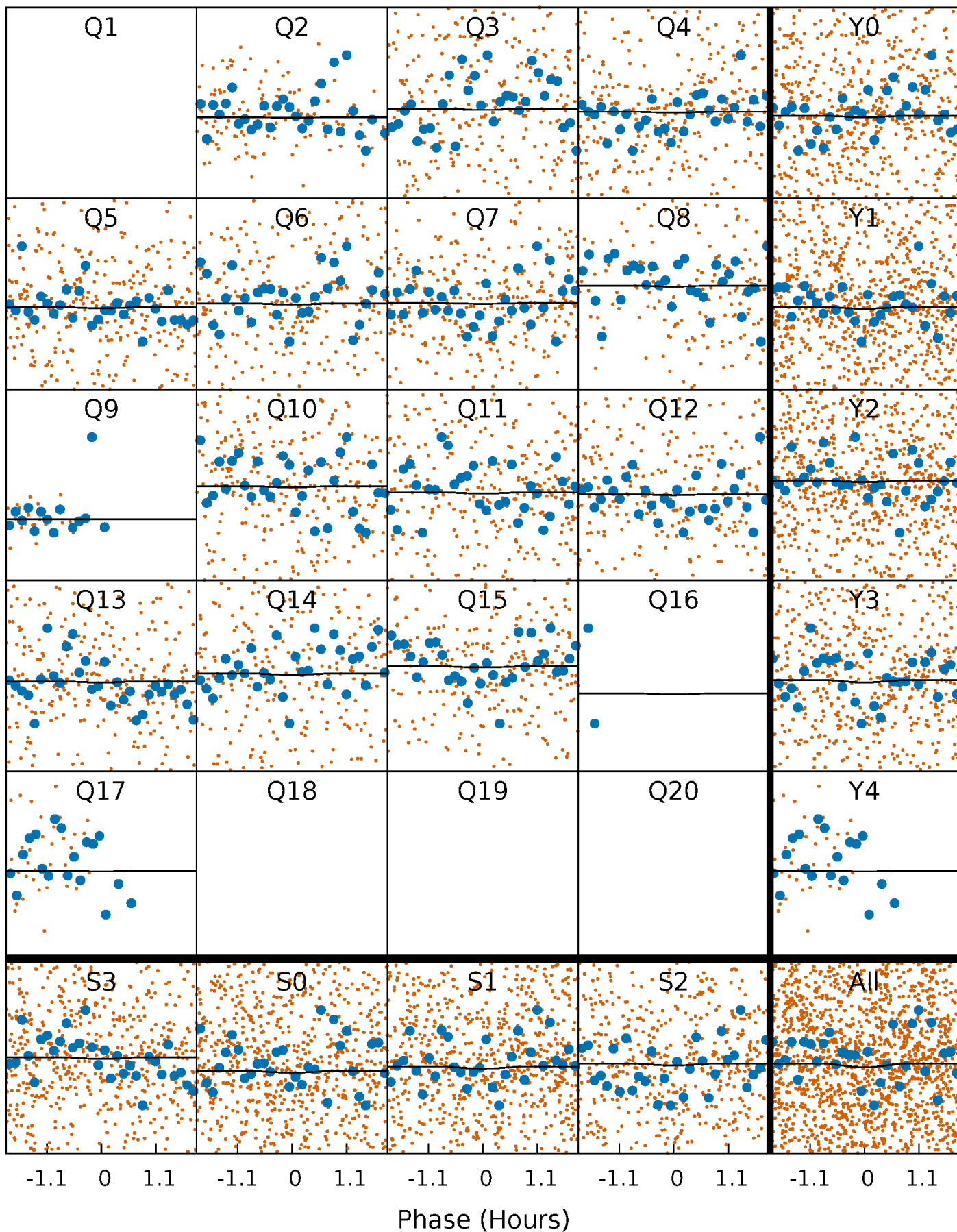
PDC Quarter-Phased Transit Curves

TCE 007364845-02 P= 2.074833 Days $T_0=132.593290$ (BKJD)



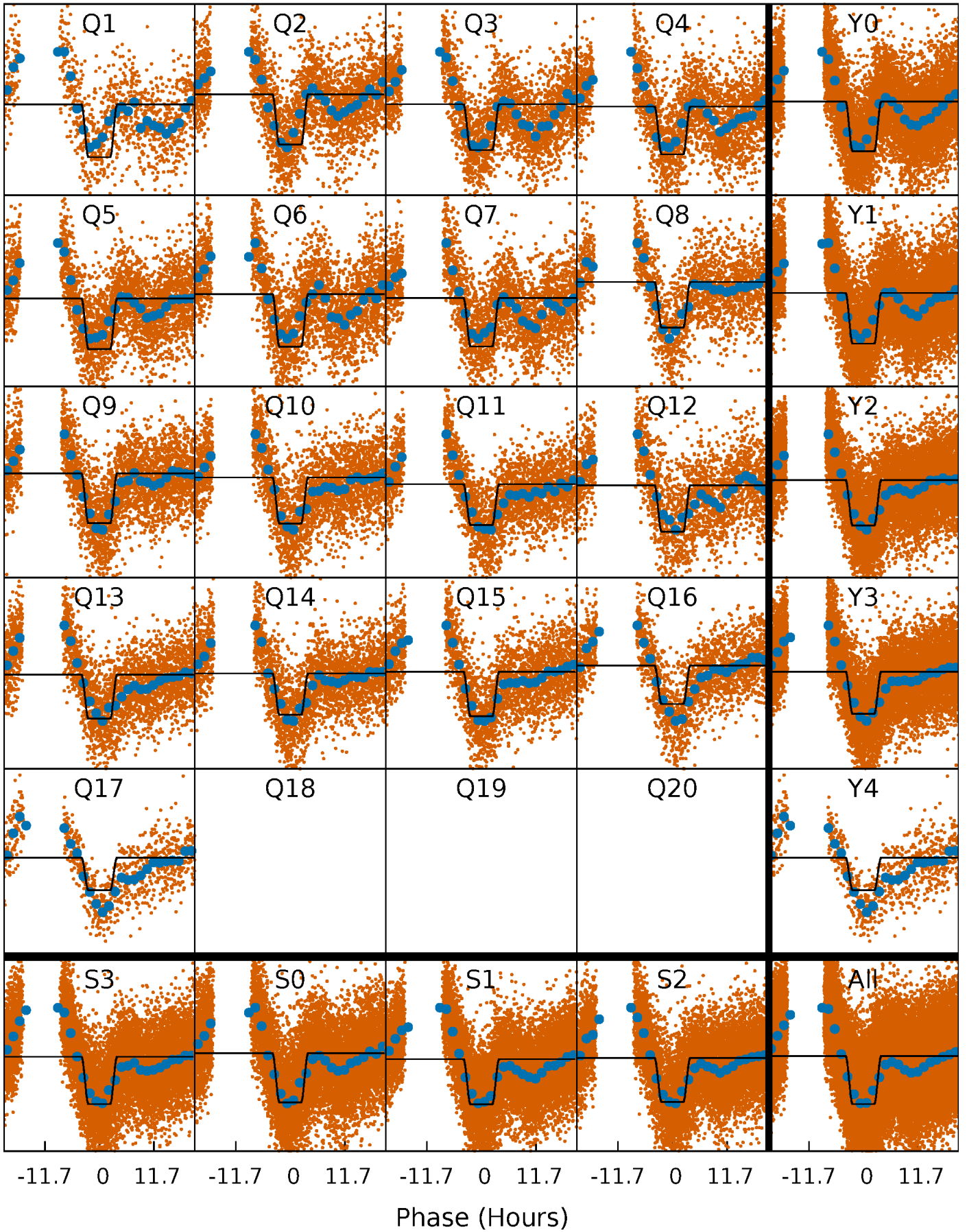
DV Quarter-Phased Transit Curves

TCE 007364845-02 P= 2.074833 Days $T_0=132.593290$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

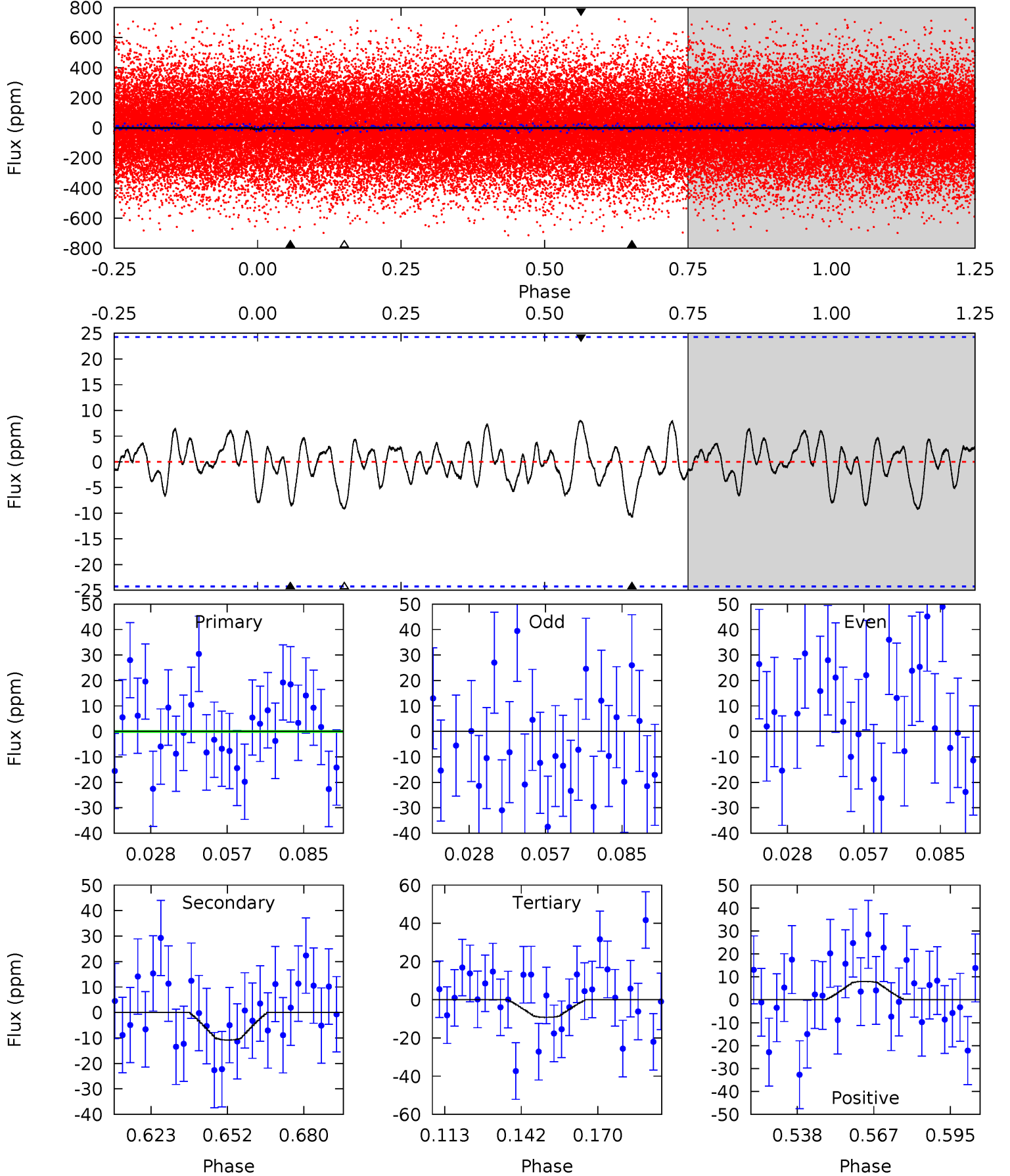
TCE 007364845-02 P= 2.081156 Days $T_0=133.029170$ (BKJD)



DV Model-Shift Uniqueness Test

007364845-02, P = 2.074833 Days, E = 130.518457 Days

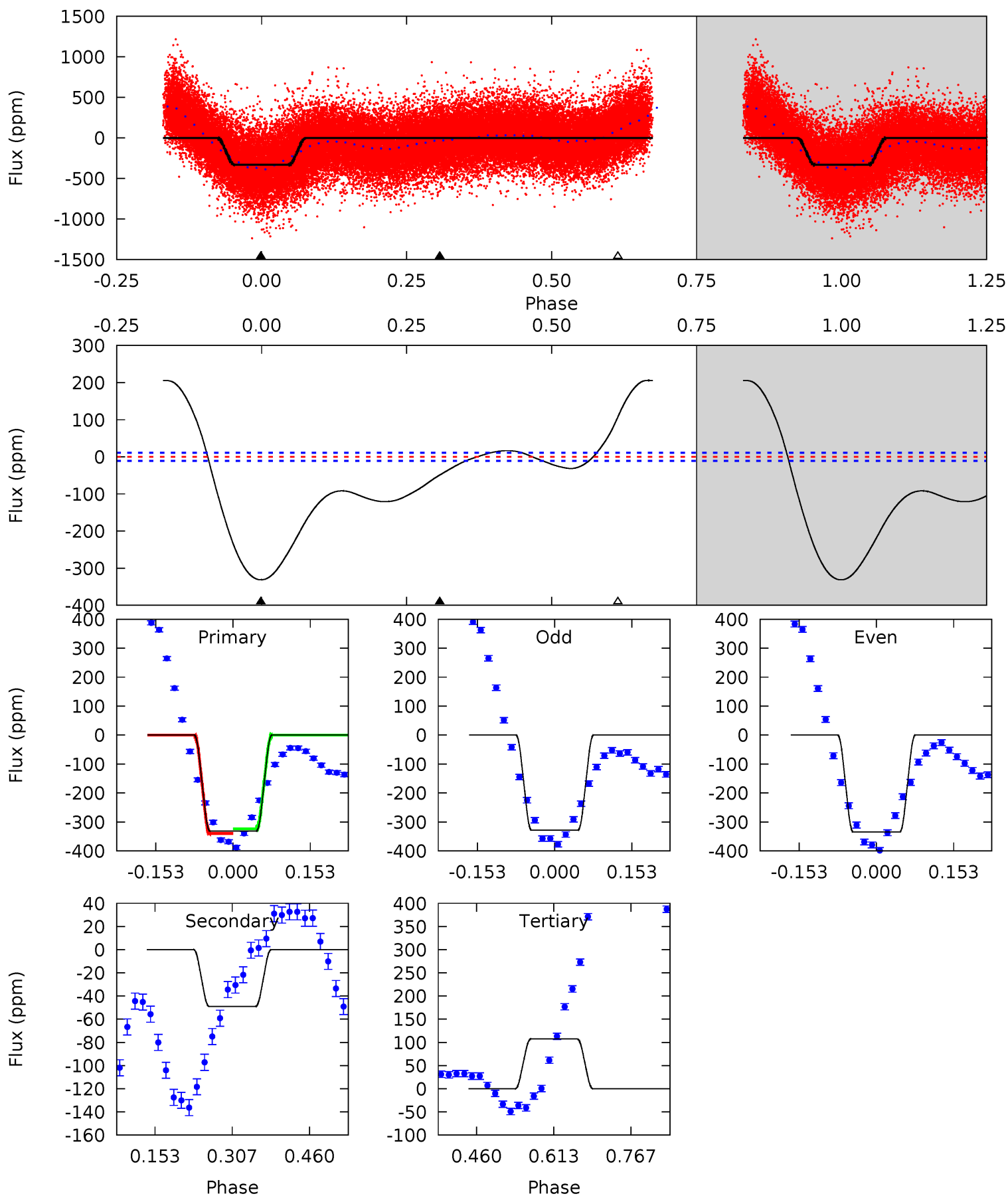
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.61	2.15	1.83	1.59	4.82	2.19	0.65	-0.21	0.02	0.32	0.56	1.51	0.36	0.42	0.42



Alt Model-Shift Uniqueness Test

007364845-02, P = 2.081156 Days, E = 130.948014 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
136.4	20.2	-44.2	0	4.47	1.43	35.4	180.5	136.4	64.3	20.2	1.35	1.01	0.38	2.55



Stellar Parameters For KIC 007364845

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6770^{+81}_{-81}	$3.983^{+0.174}_{-0.116}$	$-0.020^{+0.150}_{-0.150}$	$2.075^{+0.412}_{-0.453}$	$1.513^{+0.143}_{-0.143}$	$0.238^{+0.204}_{-0.087}$
	+1%/-1%	+4%/-3%	+750%/-750%	+20%/-22%	+9%/-9%	+86%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 007364845-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 5	$1.50^{+1.59}_{-1.04}$	3139^{+153}_{-172}	4701^{+3749}_{-1514}	$3.513^{+30.164}_{-2.908}$
Alt.	-49 ± 2	$4.30^{+2.26}_{-2.07}$	3128^{+171}_{-174}	4167^{+1378}_{-691}	$1.963^{+5.077}_{-1.120}$

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

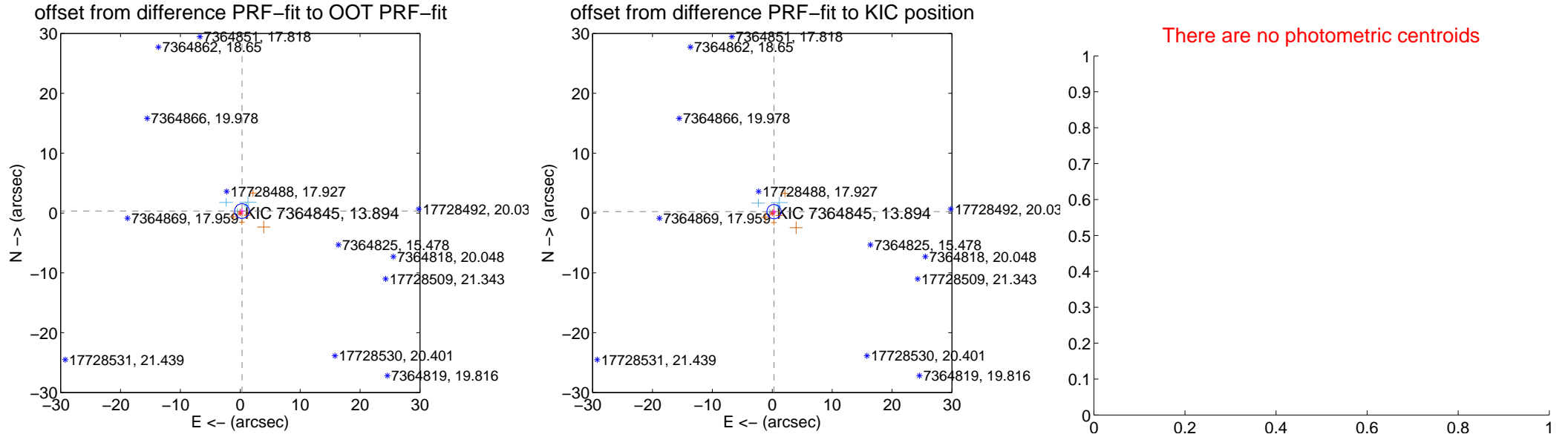
DV Centroid Data

Supplemental centroid analysis for 007364845-02. Kepler magnitude: 13.89. Transit SNR 0.30

There are 5 quarters with good PRF difference image offsets

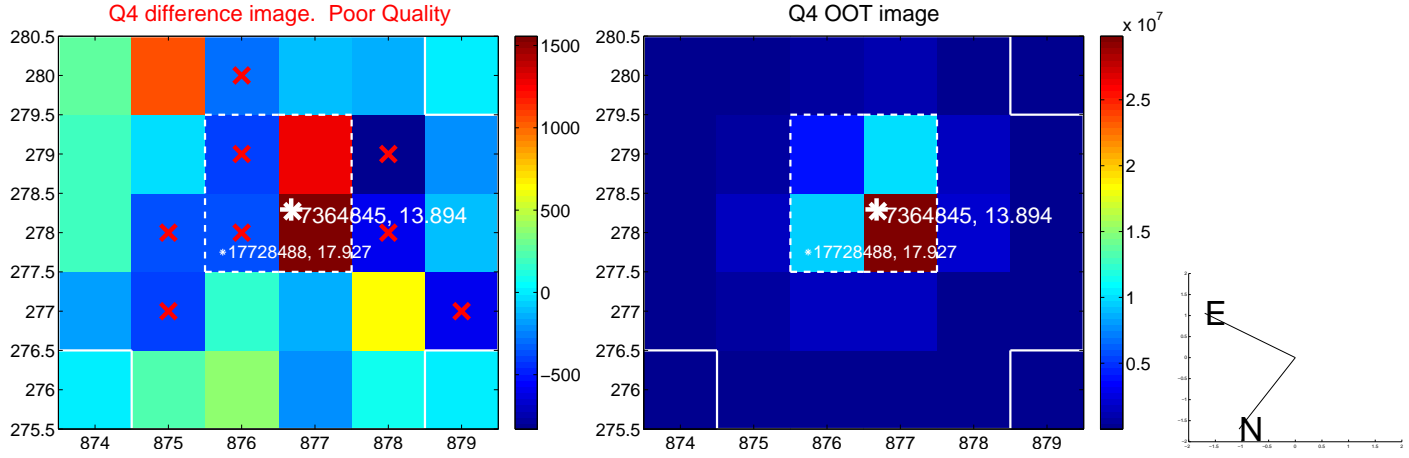
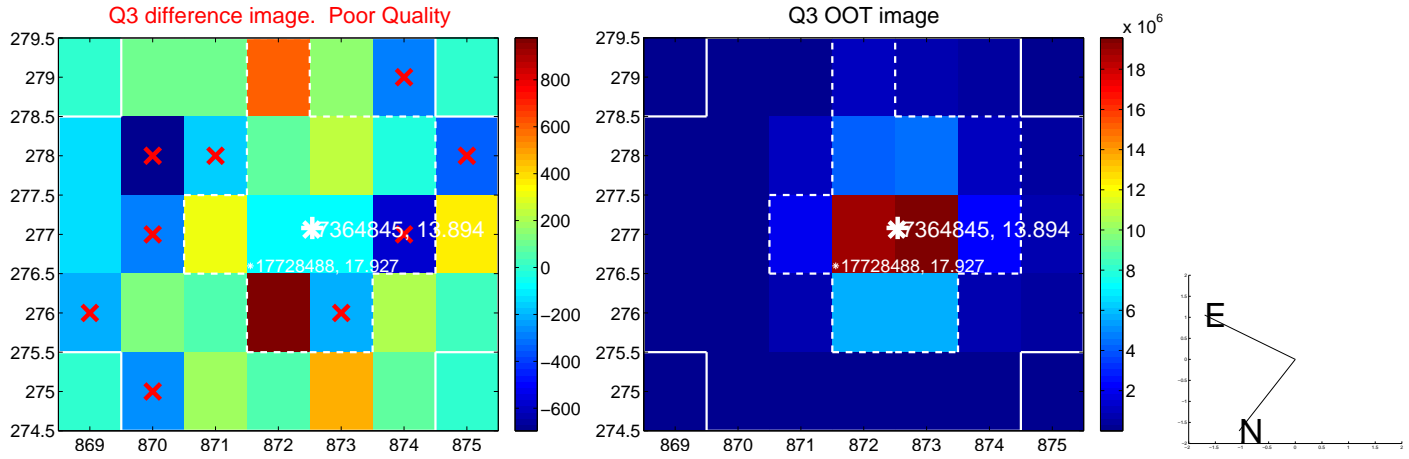
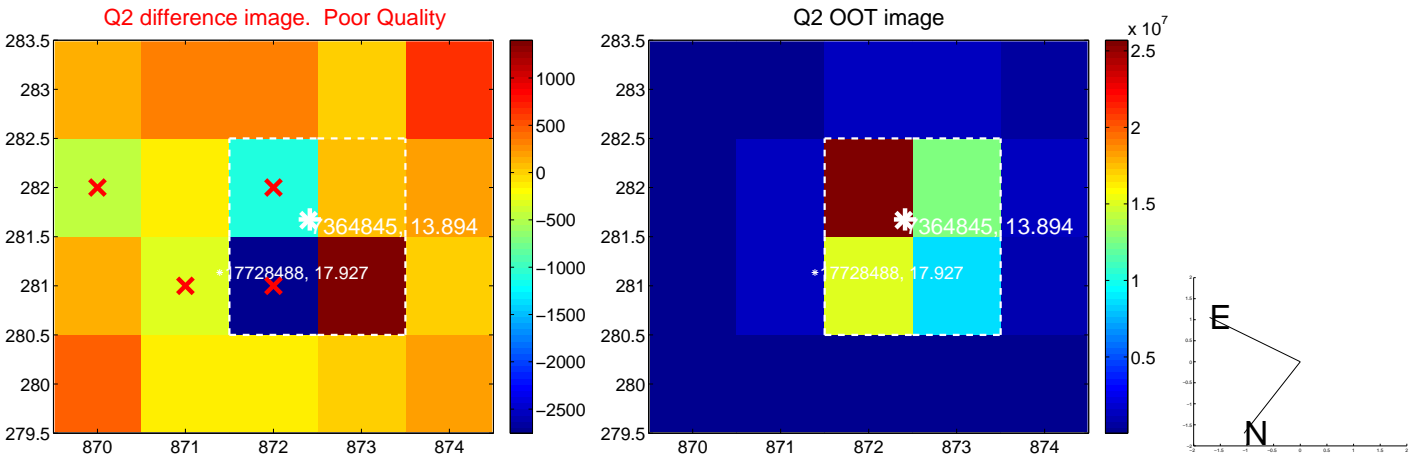
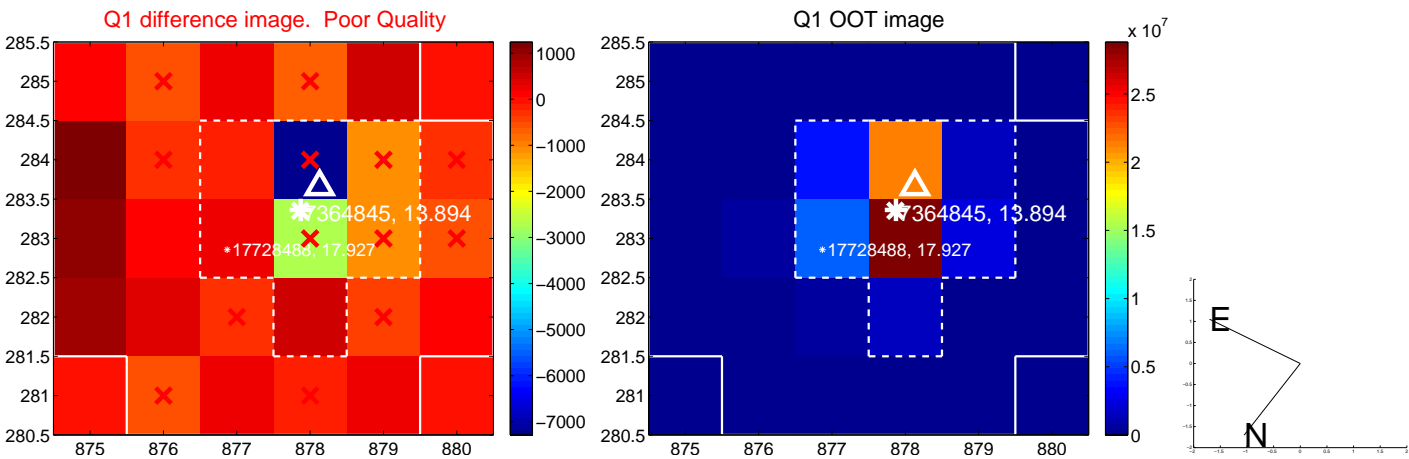
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.434 ± 0.410	1.06	-0.284 ± 0.433	0.328 ± 0.485
PRF-fit source offset from KIC position	0.377 ± 0.397	0.95	-0.298 ± 0.408	0.232 ± 0.487
photometric centroid source offset	—	—	—	—

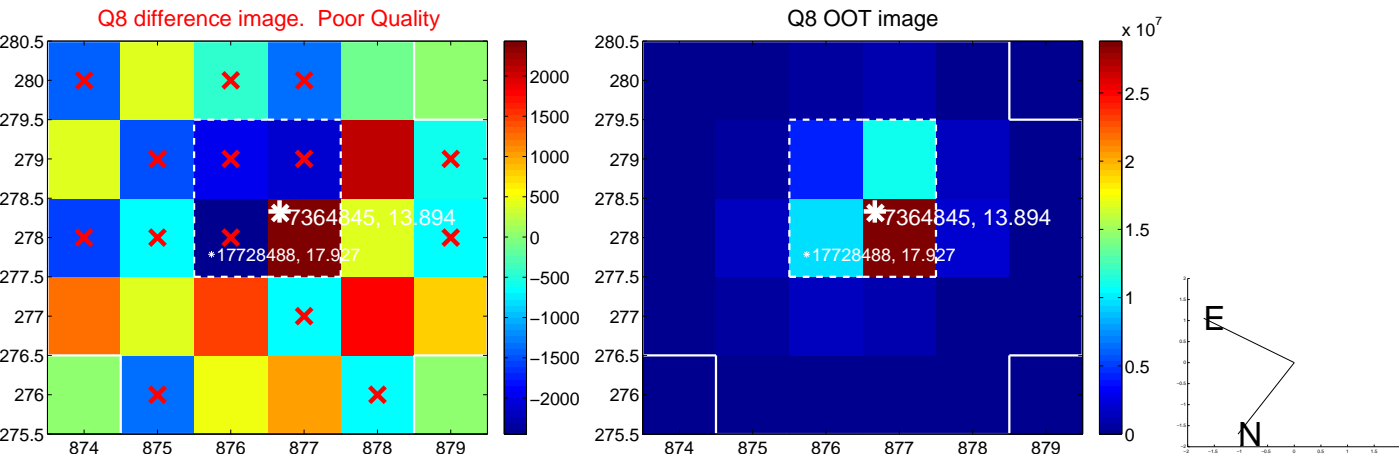
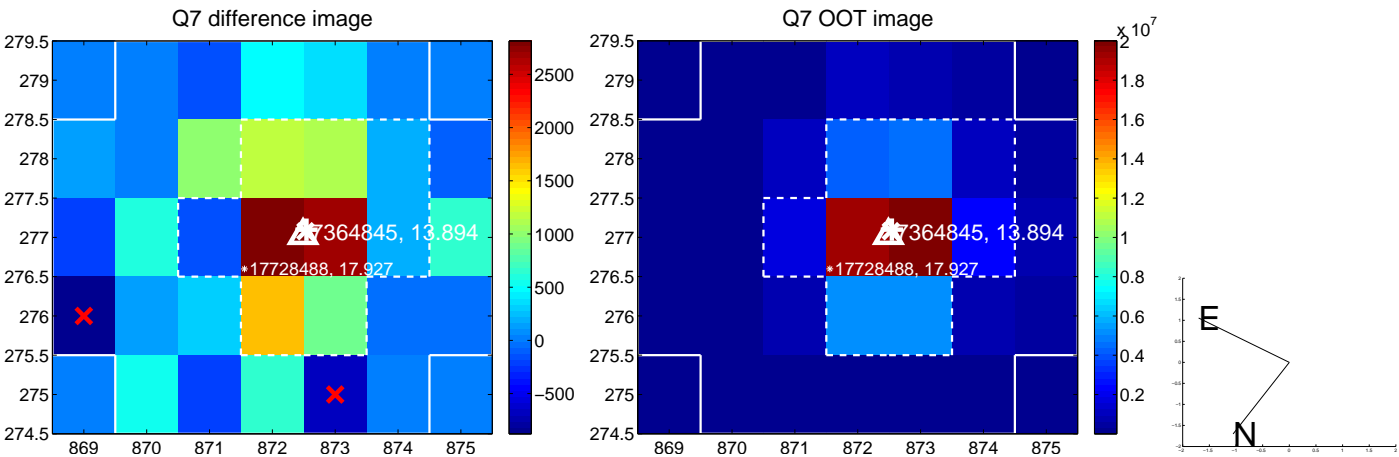
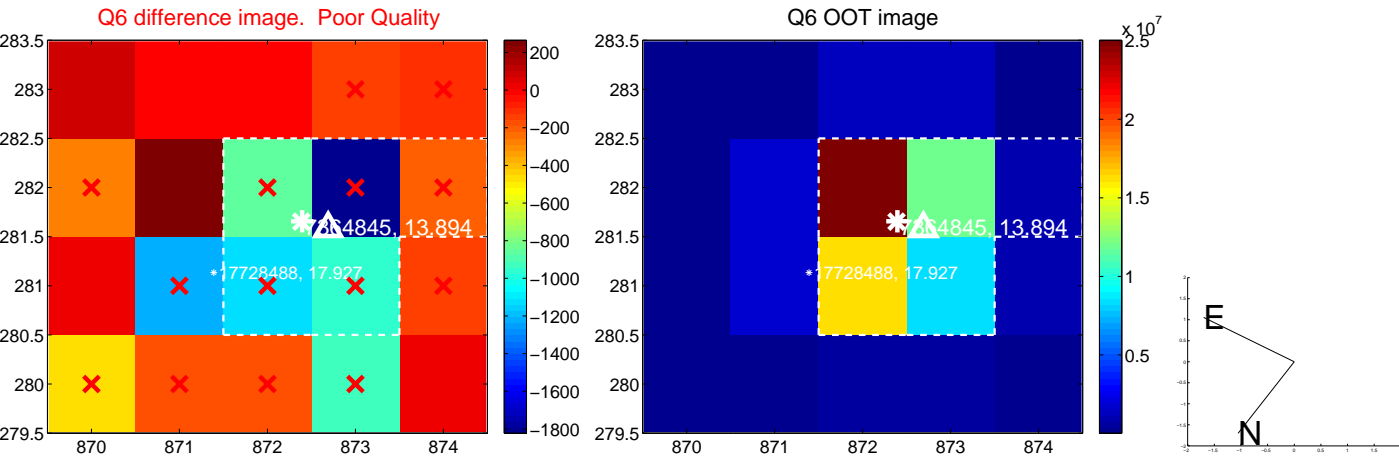
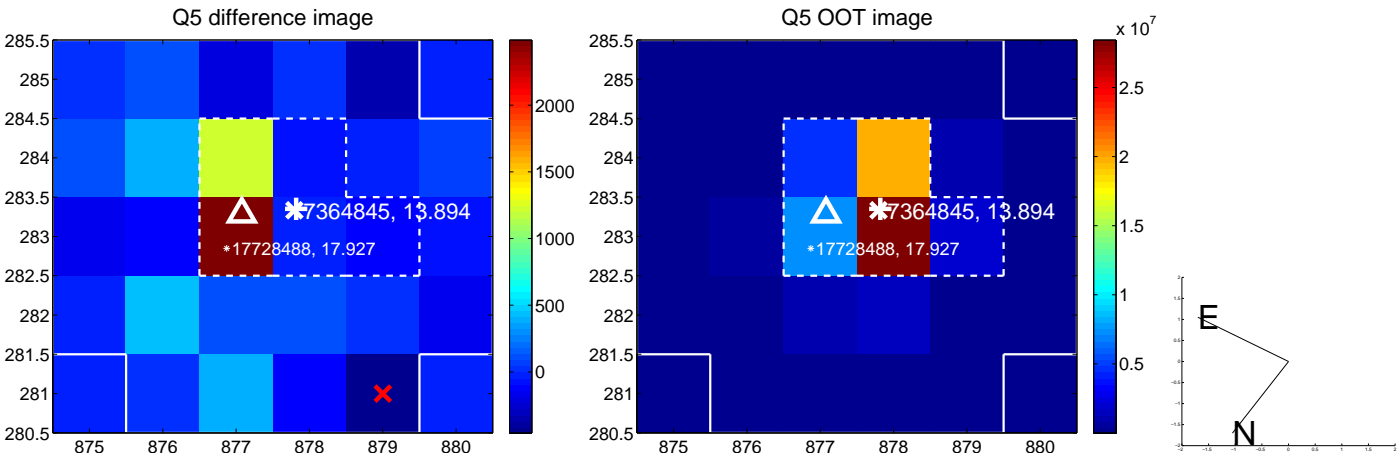


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

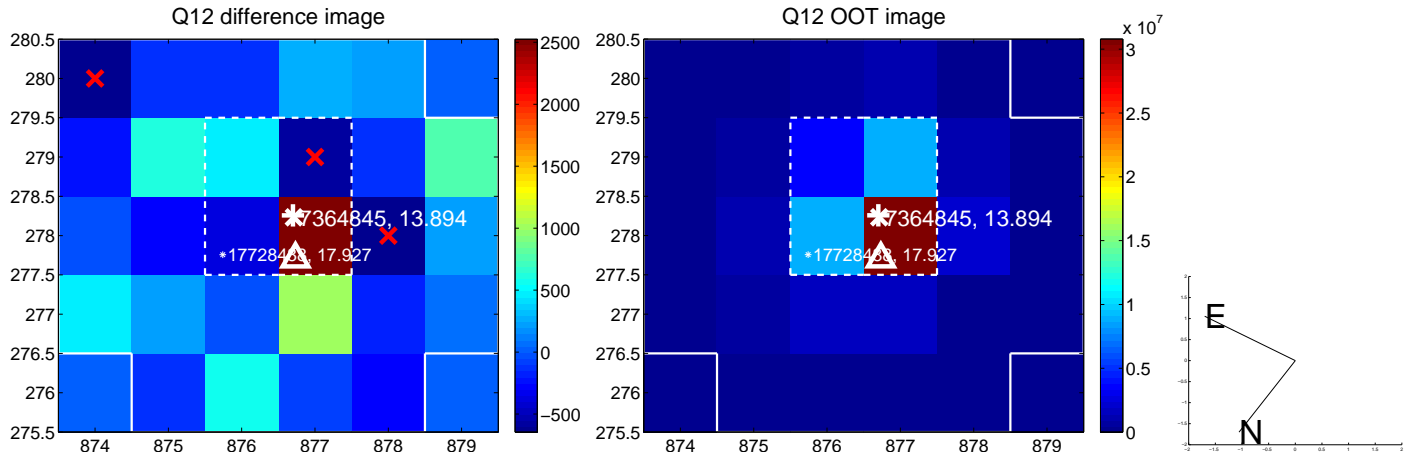
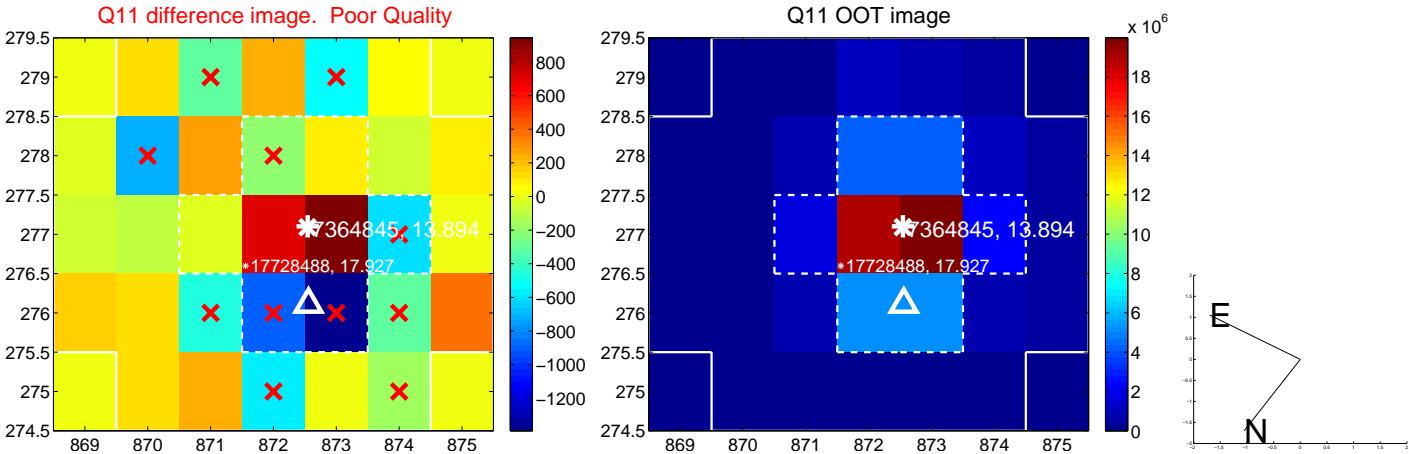
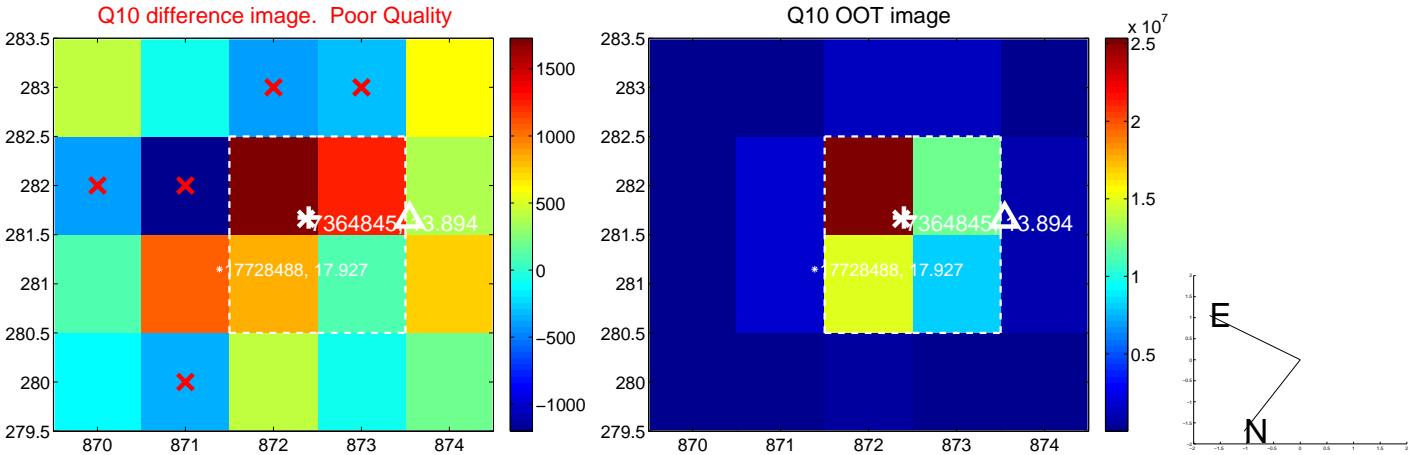
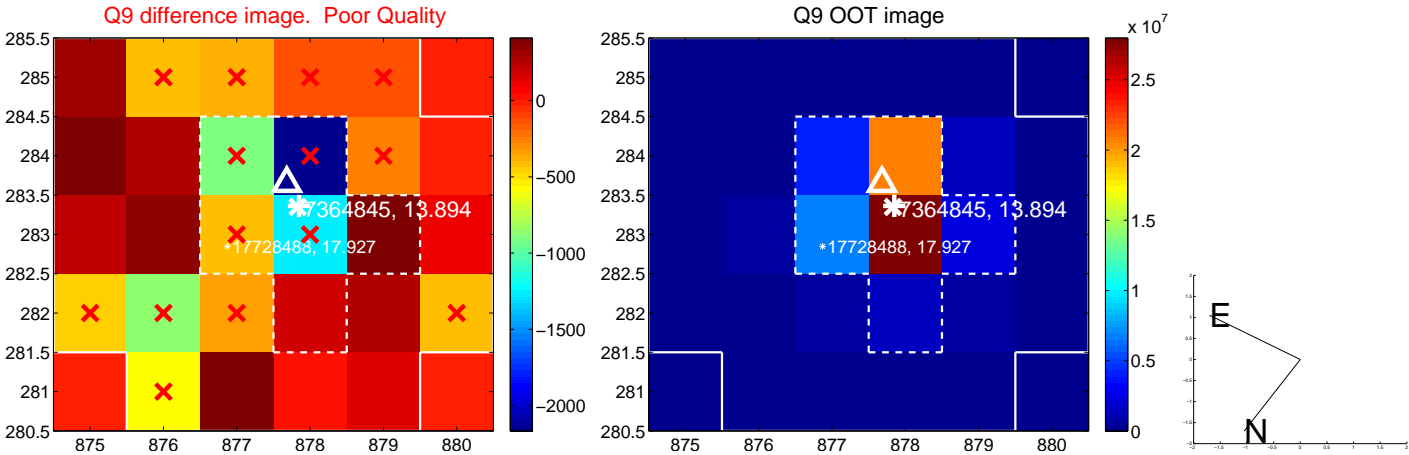
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



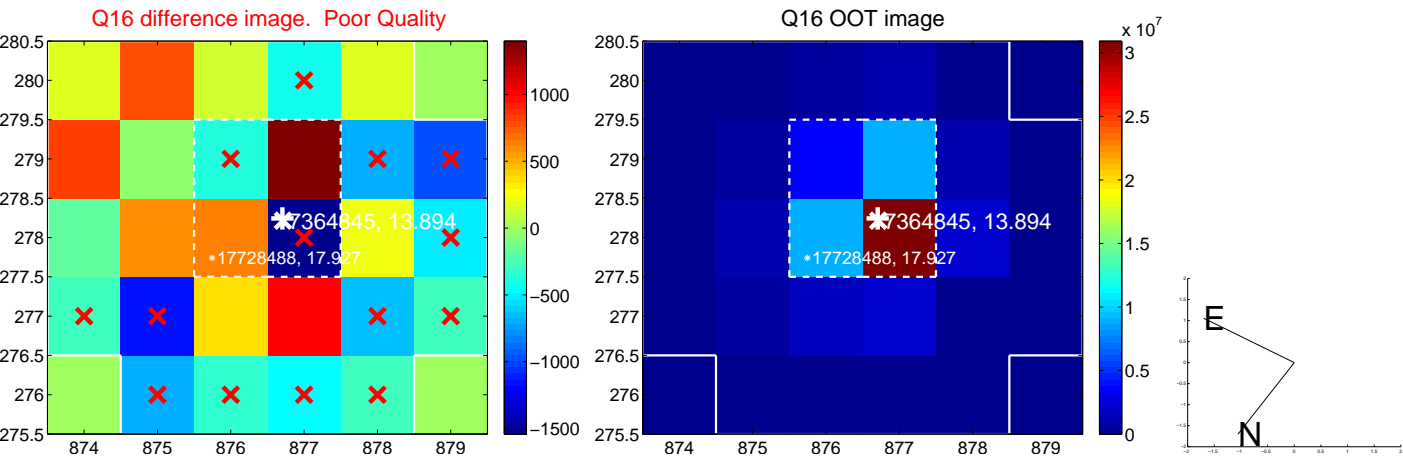
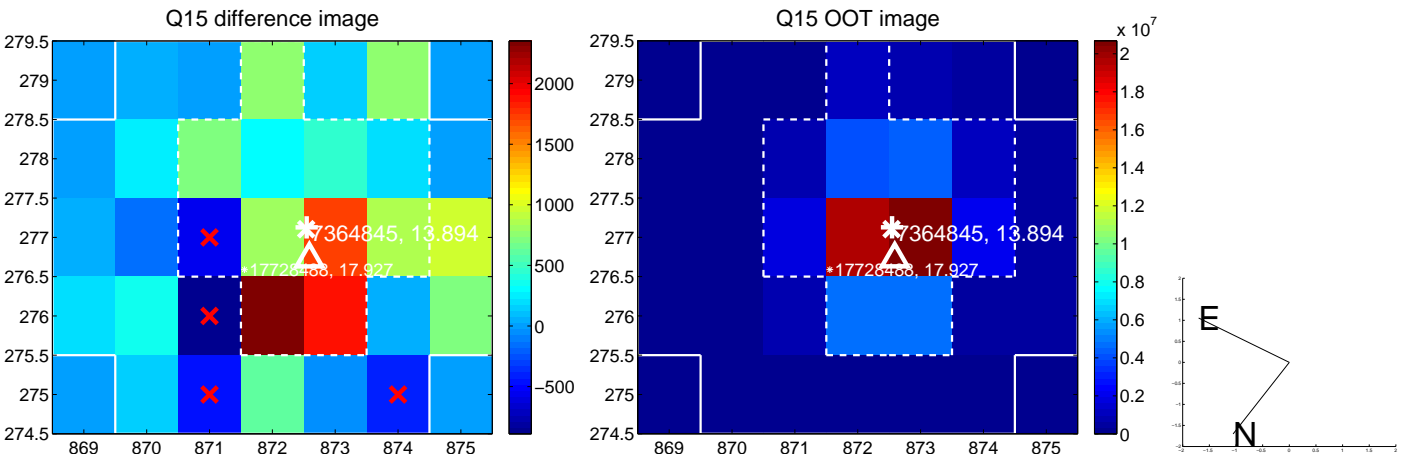
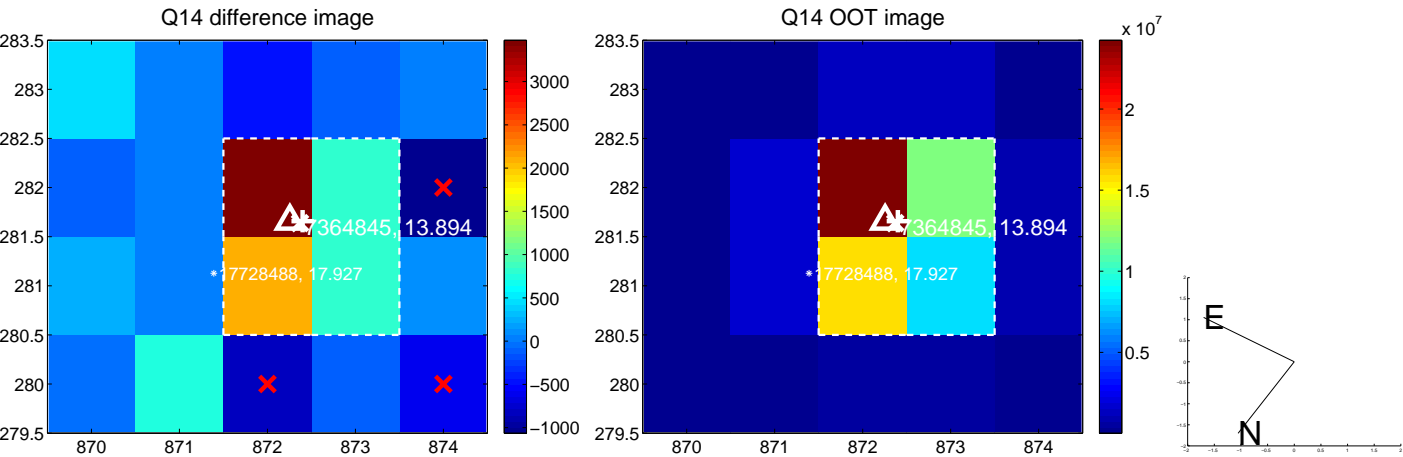
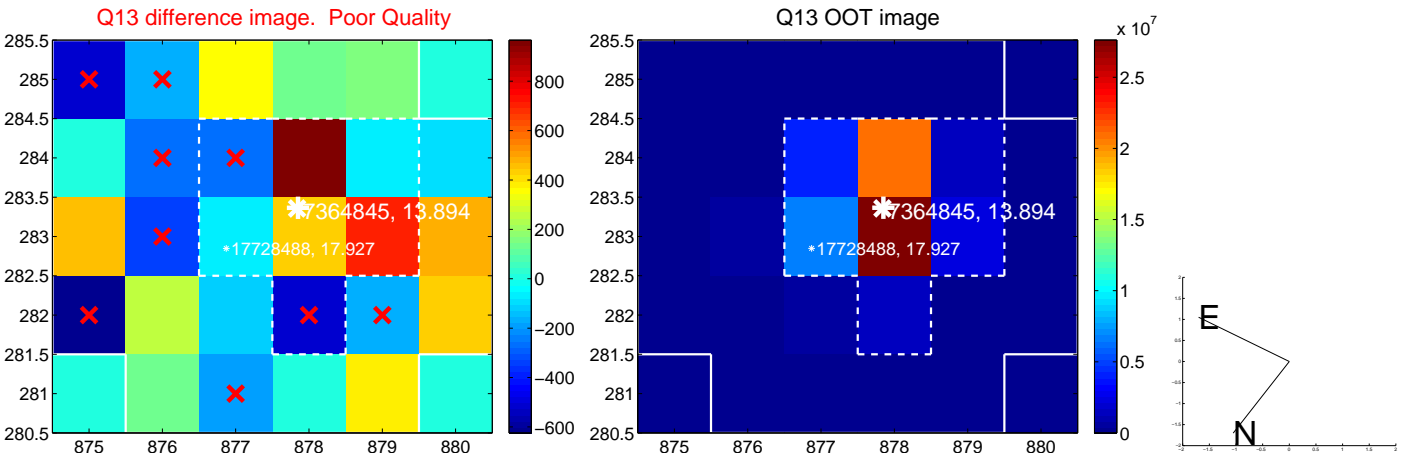
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



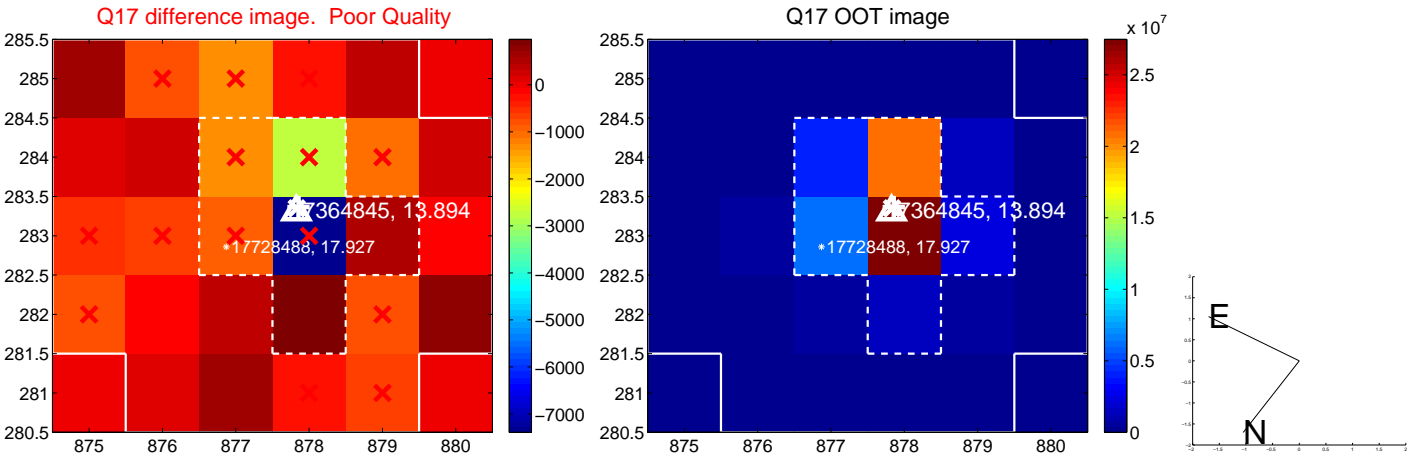
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

