

KIC 006947064

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})
006947064-01	OBS	No	441.434847	168.827594	201.7	17.595	22.8	13.7	2.66	8392	4.29	14.71
006947064-02	OBS	No	2.983910	132.698816	0.7	0.838	9.5	0.2	2.66	8392	0.24	11507.95
006947064-03	OBS	No	1.989089	133.064284	7.6	13.474	8.8	10.4	2.66	8392	0.77	19762.42
006947064-04	OBS	No	69.781101	186.843310	166.7	8.086	26.3	13.3	2.66	8392	3.82	172.08
006947064-05	OBS	No	82.263943	138.604381	170.9	6.687	18.1	12.8	2.66	8392	3.77	138.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006947064-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006947064-02	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—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
006947064-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

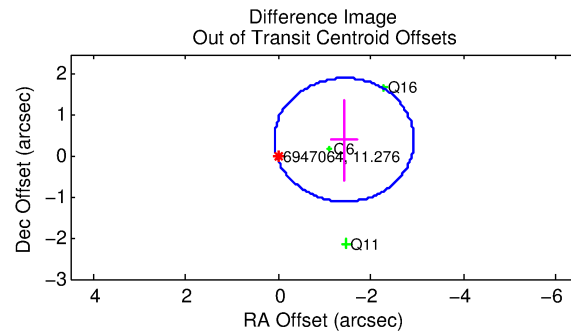
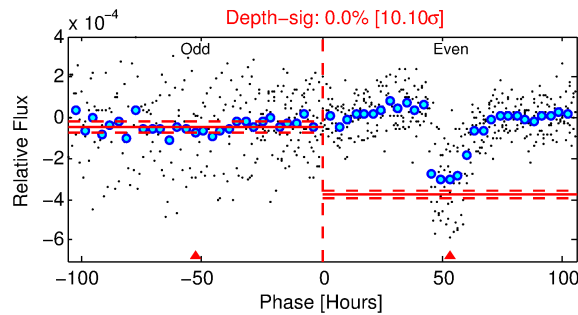
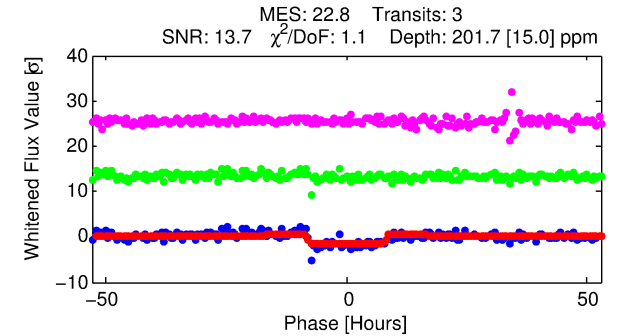
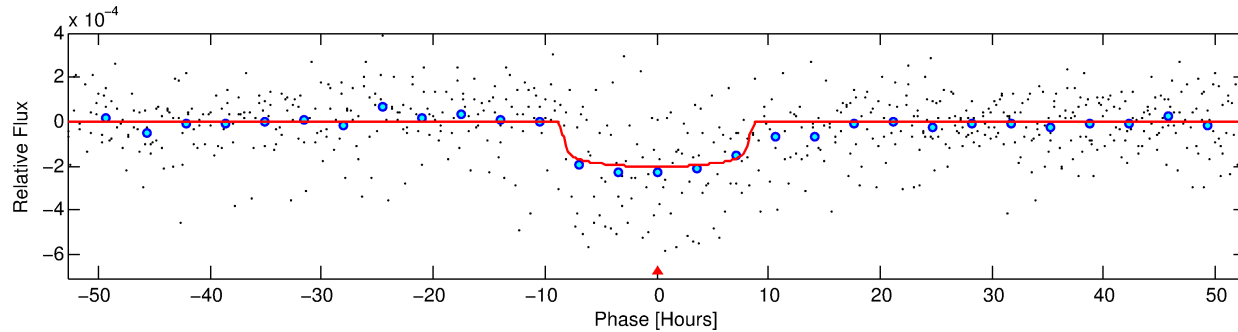
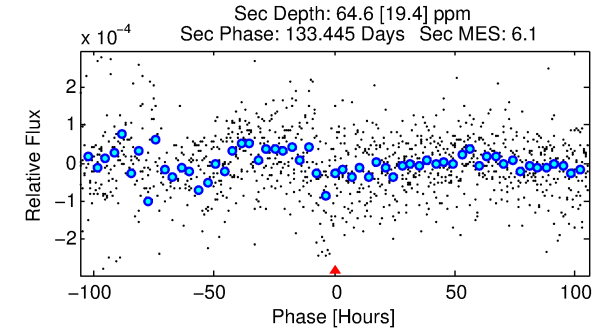
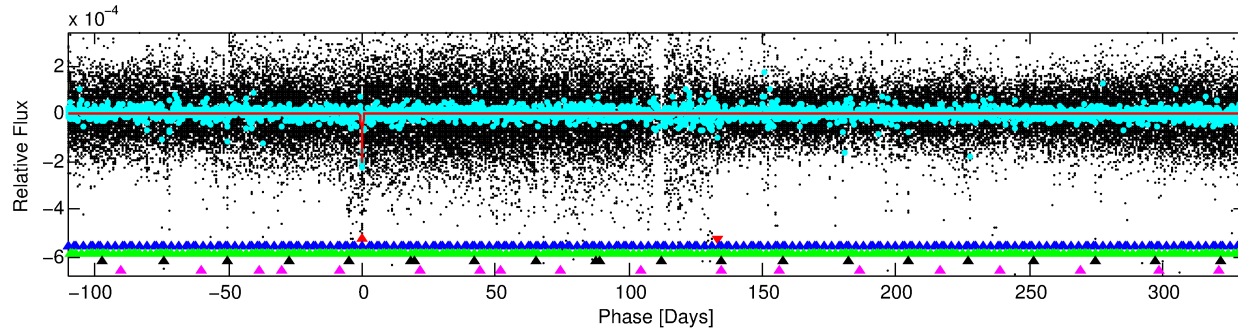
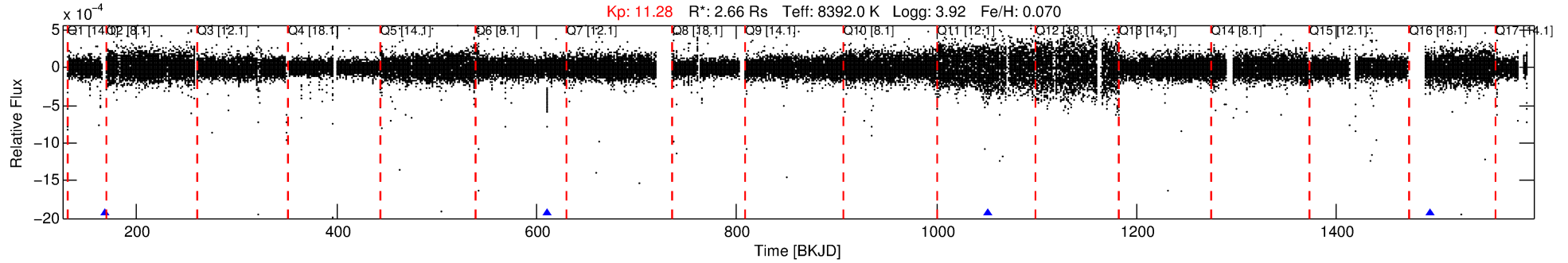
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006947064-01

No Significant Match Found

DV One-Page Summary

KIC: 6947064 Candidate: 1 of 5 Period: 441.435 d



DV Fit Results:

Period = 441.43485 [0.00916] d
Epoch = 168.8276 [0.0168] BKJD
Rp/R* = 0.0148 [0.0013]
a/R* = 101.86 [47.94]
b = 0.86 [0.14]
Seff = 14.71 [6.97]
Teq = 499 [59] K
Rp = 4.29 [1.60] Re
a = 1.4643 [0.4456] AU
Ag = 4129.58 [2314.21] [1.78 σ]
Teffp = 6189 [598] K [9.46 σ]

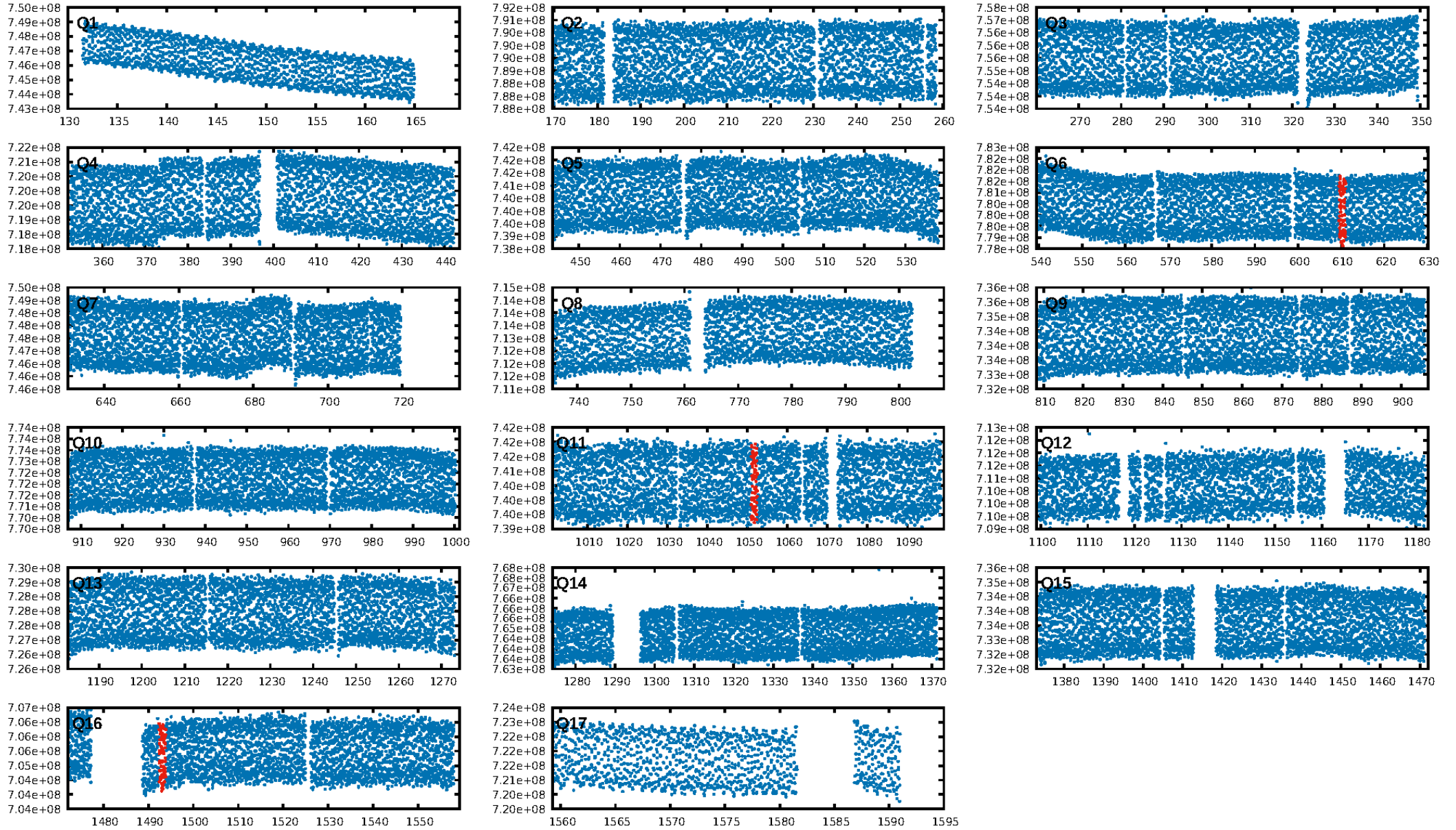
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [457.95 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 90.8%
Bootstrap-pfa: 7.10e-88
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 9.371
Centroid-sig: 99.4%
Centroid-so: 0.207 arcsec [0.33 σ]
OotOffset-rm: 1.479 arcsec [2.94 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 1.474 arcsec [2.24 σ]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/3]

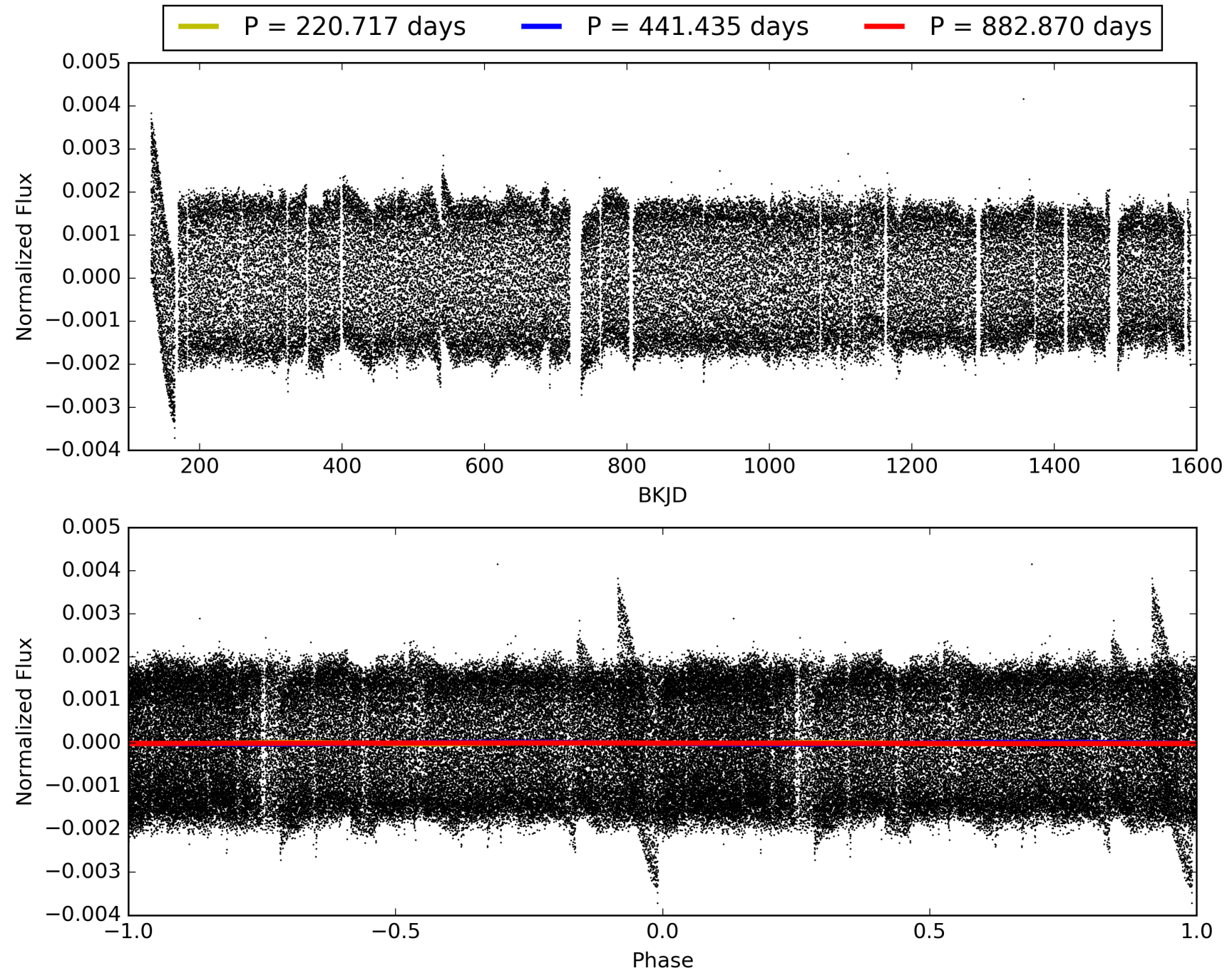
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:08:30 Z

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

TCE 006947064-01, PDC Light Curves

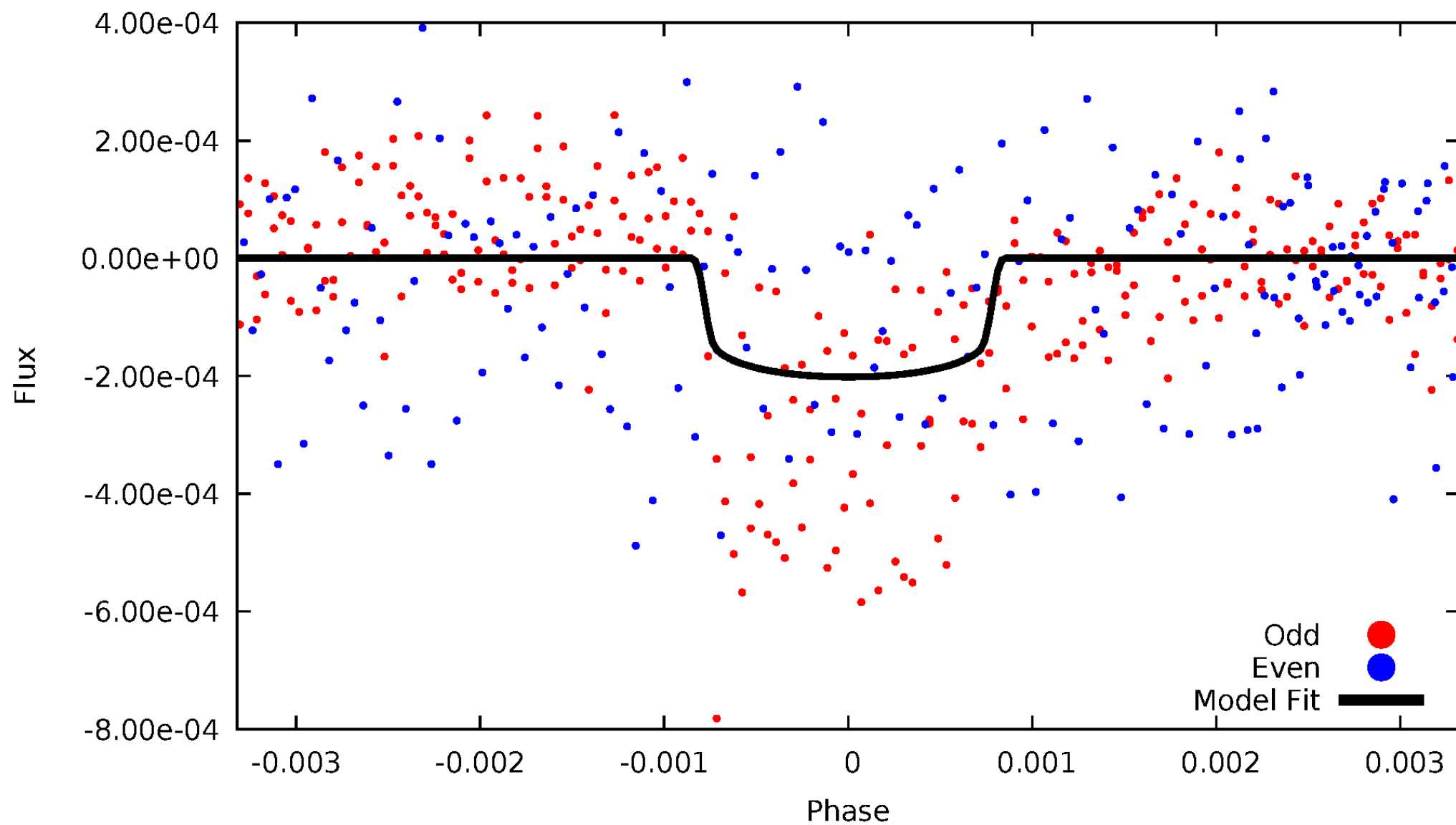


TCE 006947064-01



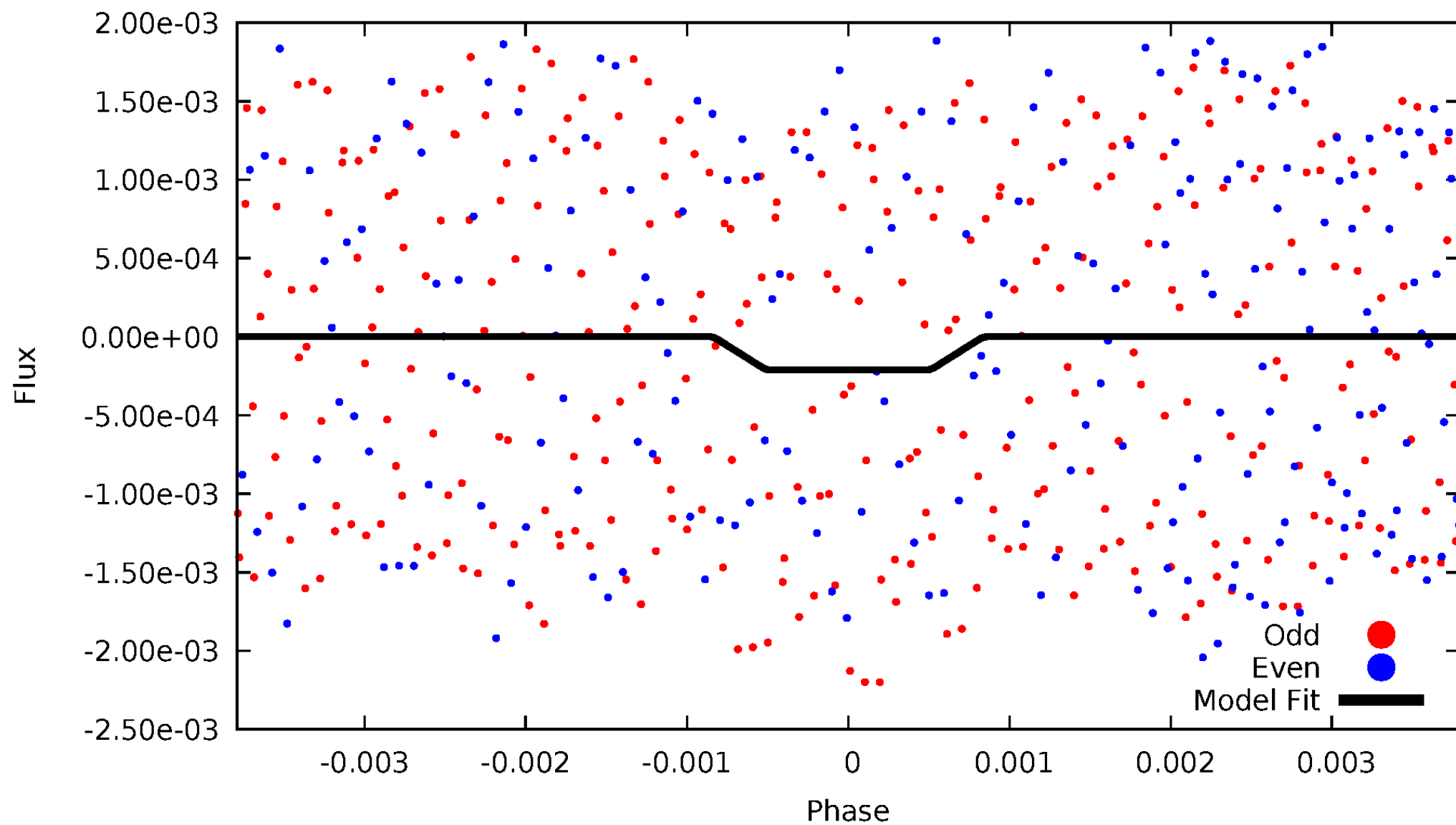
DV Odd/Even

TCE 006947064-01



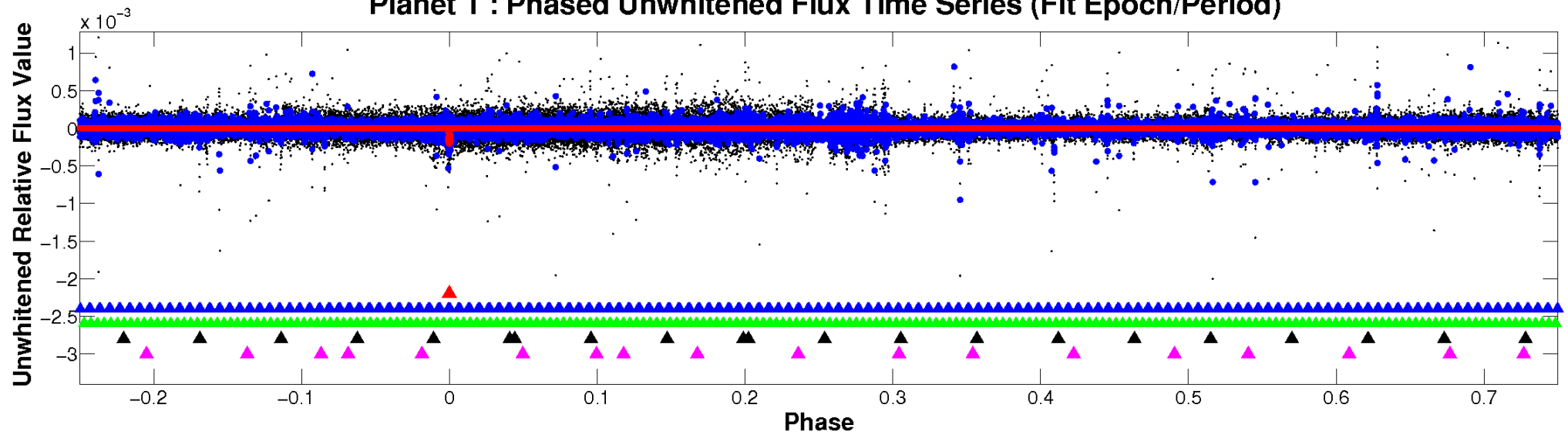
ALT Odd/Even

TCE 006947064-01

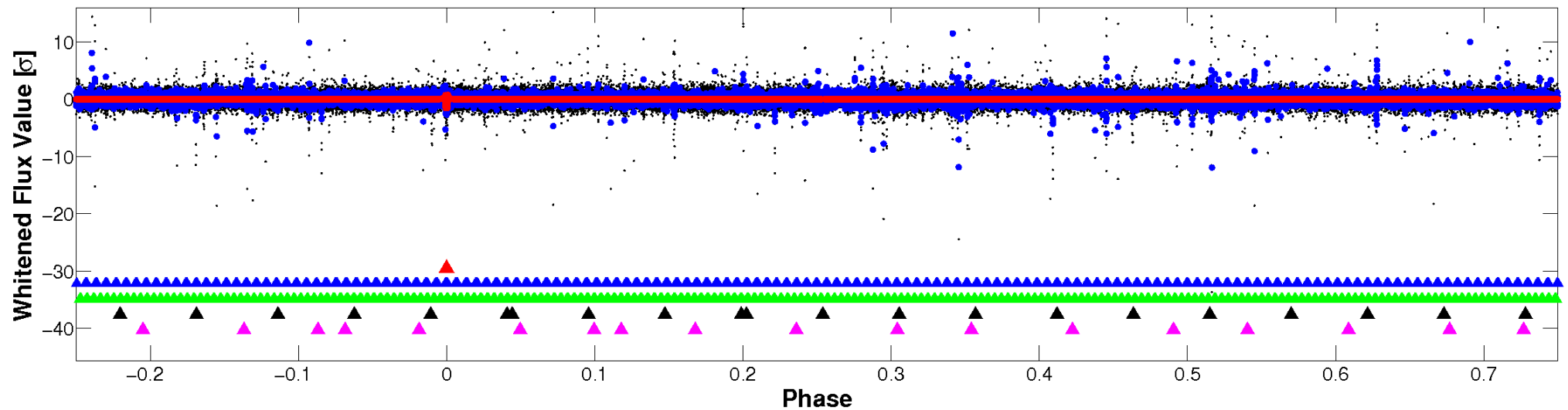


Non-Whitened Vs. Whitened Light Curve

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

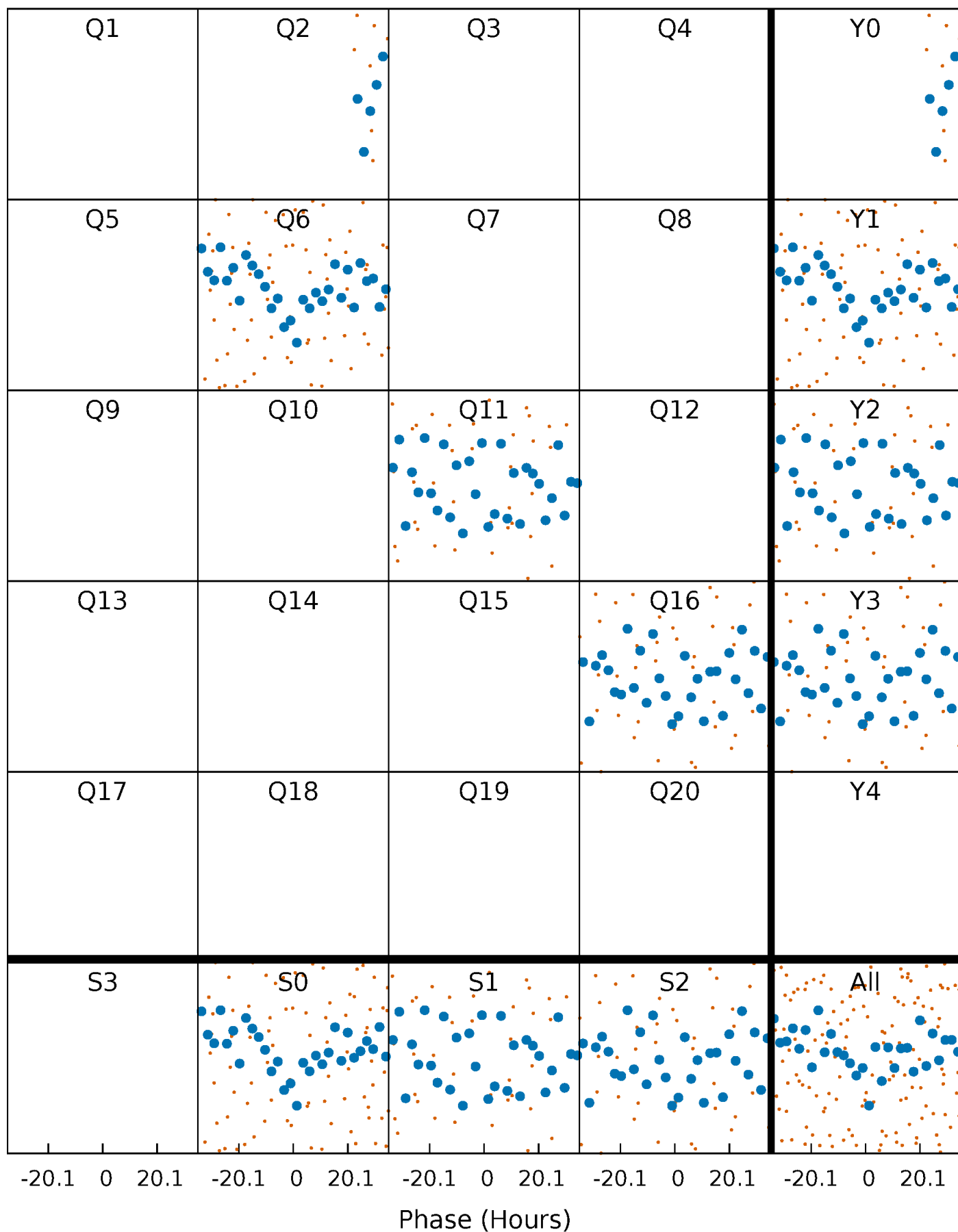


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



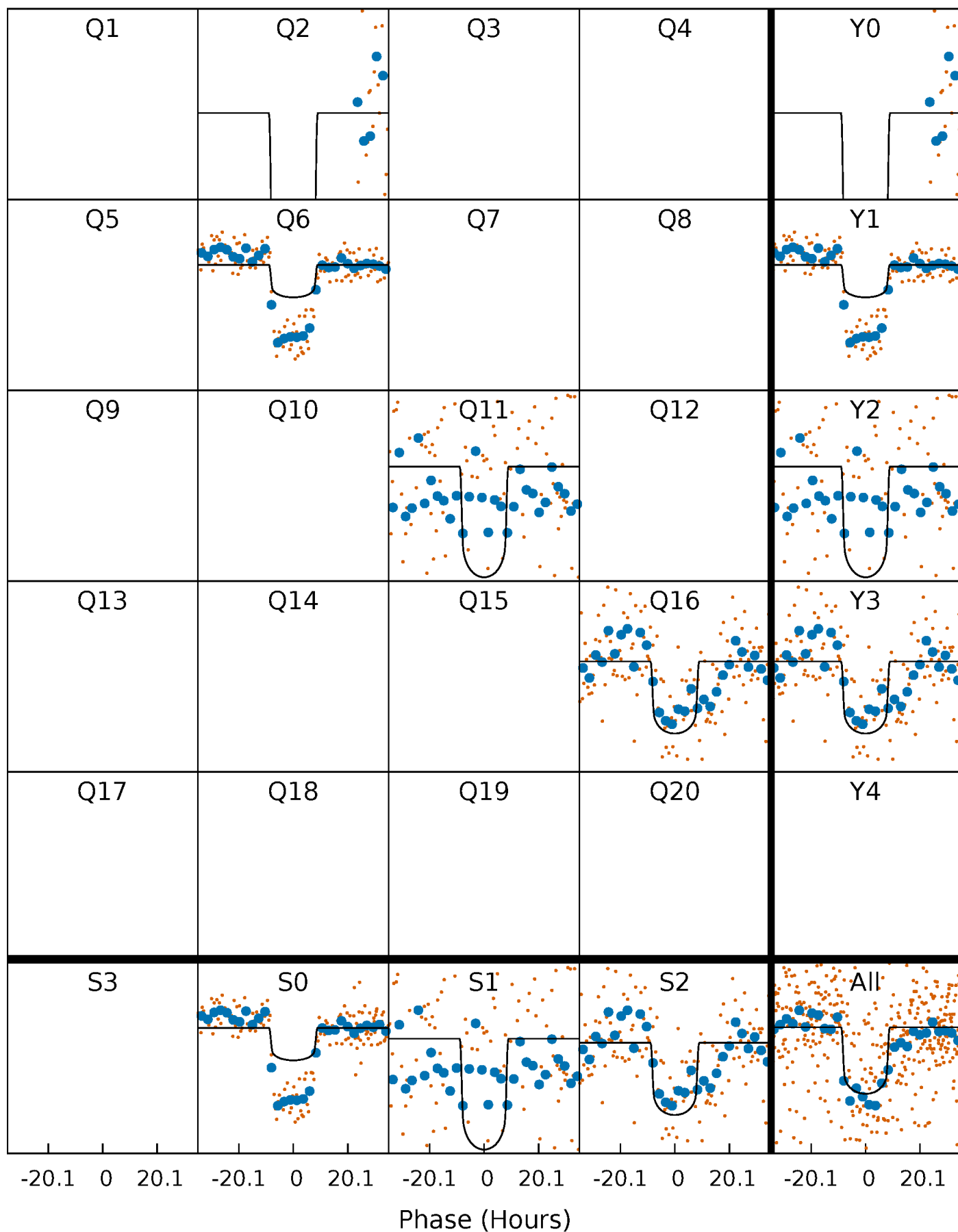
PDC Quarter-Phased Transit Curves

TCE 006947064-01 P=441.434847 Days $T_0=168.827594$ (BKJD)



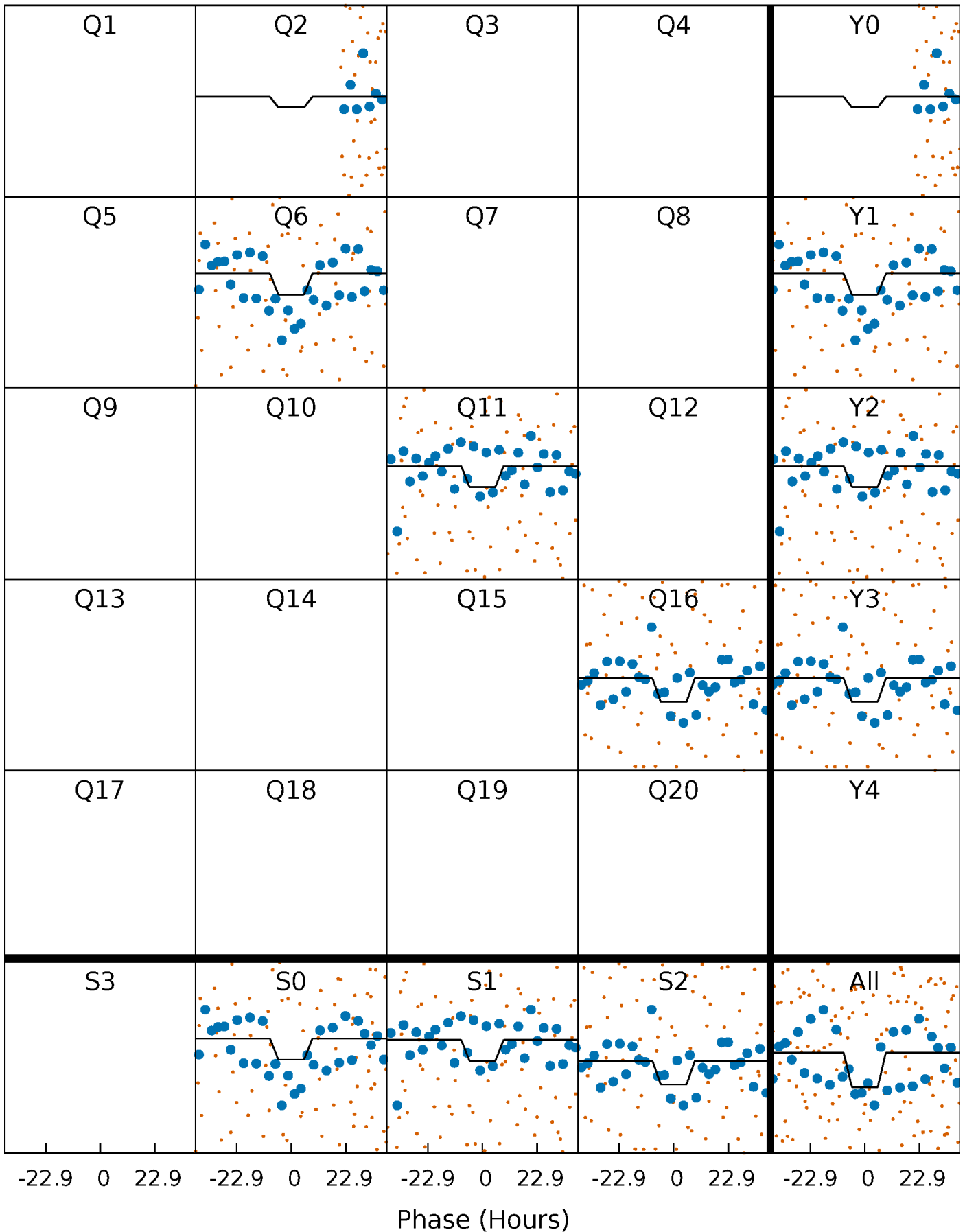
DV Quarter-Phased Transit Curves

TCE 006947064-01 P=441.434847 Days $T_0=168.827594$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

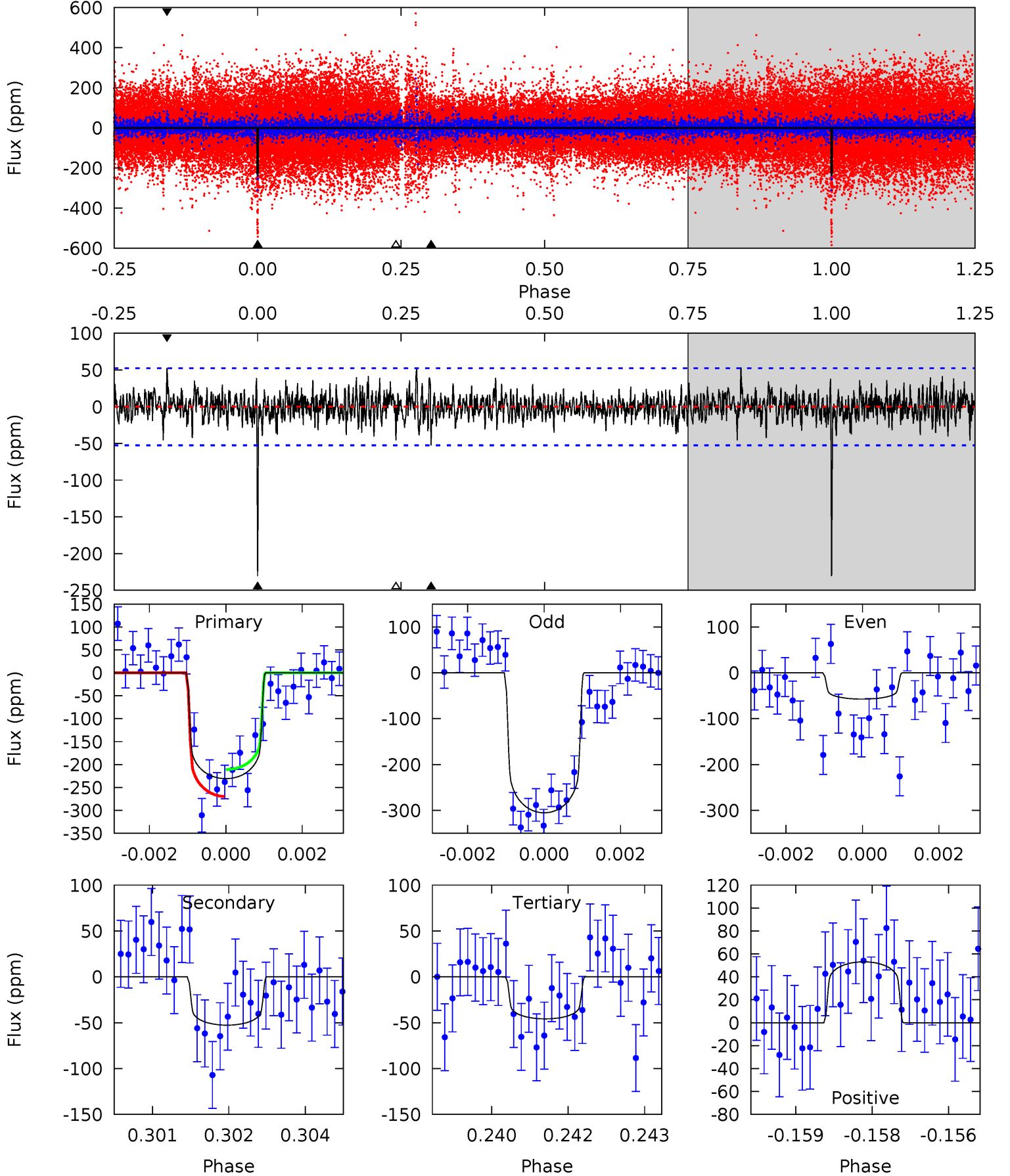
TCE 006947064-01 P=441.412574 Days $T_0=168.897137$ (BKJD)



DV Model-Shift Uniqueness Test

006947064-01, P = 441.434847 Days, E = 168.827594 Days

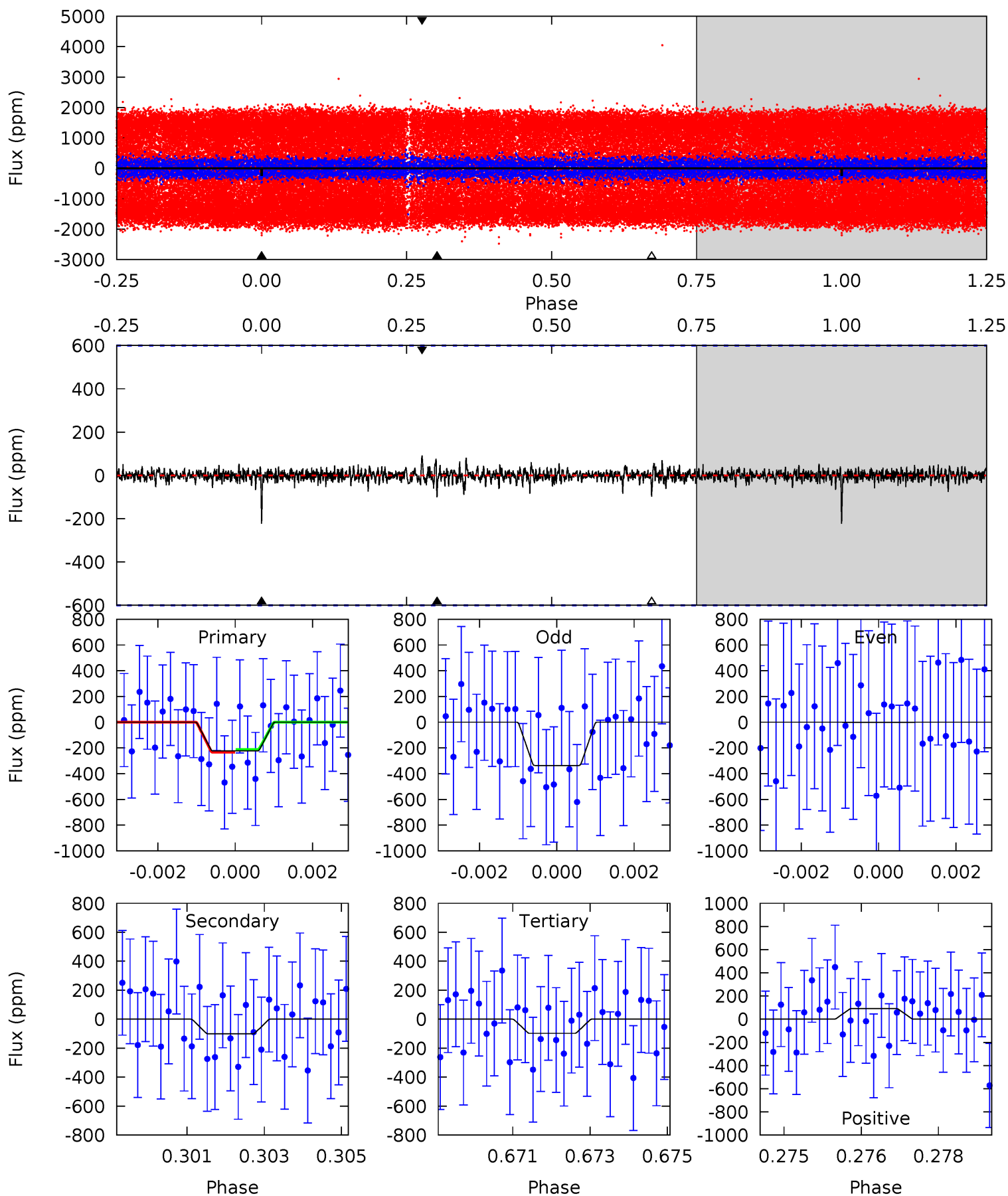
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	5.38	4.68	5.42	5.36	3.15	1.31	18.9	18.1	0.70	-0.04	11.4	1.55	0.19	3.00



Alt Model-Shift Uniqueness Test

006947064-01, P = 441.412574 Days, E = 168.897137 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.99	0.90	0.88	0.81	5.36	3.14	0.17	1.11	1.18	0.03	0.09	1.41	1.42	0.29	0.09



Stellar Parameters For KIC 006947064

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8392^{+231}_{-363}	$3.919^{+0.240}_{-0.140}$	$0.070^{+0.250}_{-0.500}$	$2.664^{+0.726}_{-0.968}$	$2.149^{+0.306}_{-0.524}$	$0.160^{+0.277}_{-0.067}$
	+3%/-4%	+6%/-4%	+357%/-714%	+27%/-36%	+14%/-24%	+173%/-42%
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 006947064-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-53 ± 10	$4.19^{+0.79}_{-0.77}$	689^{+52}_{-62}	5659^{+374}_{-360}	3478^{+1752}_{-1036}
Alt.	-101 ± 112	$4.09^{+0.80}_{-0.80}$	686^{+52}_{-59}	6700^{+1785}_{-10784}	6691^{+9585}_{-7372}

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

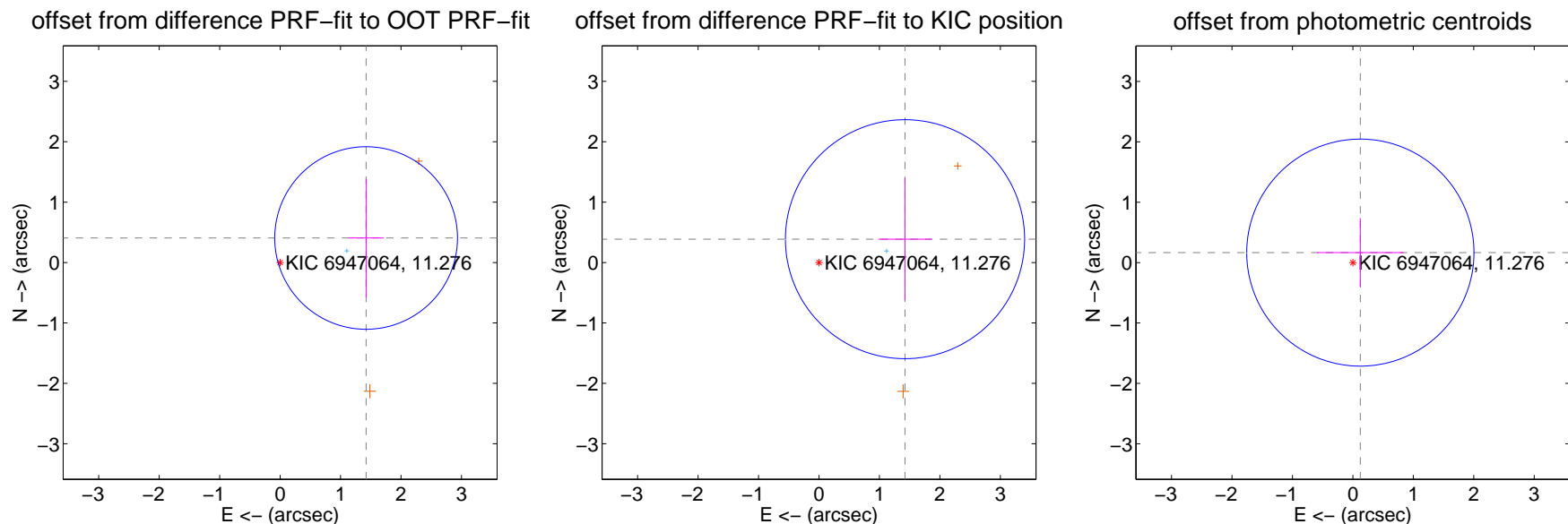
DV Centroid Data

Supplemental centroid analysis for 006947064-01. **Kepler magnitude: 11.28.** Transit SNR 13.66

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.479 ± 0.504	2.94	-1.422 ± 0.296	0.406 ± 0.978
PRF-fit source offset from KIC position	1.474 ± 0.659	2.24	-1.423 ± 0.441	0.386 ± 1.006
photometric centroid source offset	0.21 ± 0.63	0.33	-0.12 ± 0.72	0.17 ± 0.57

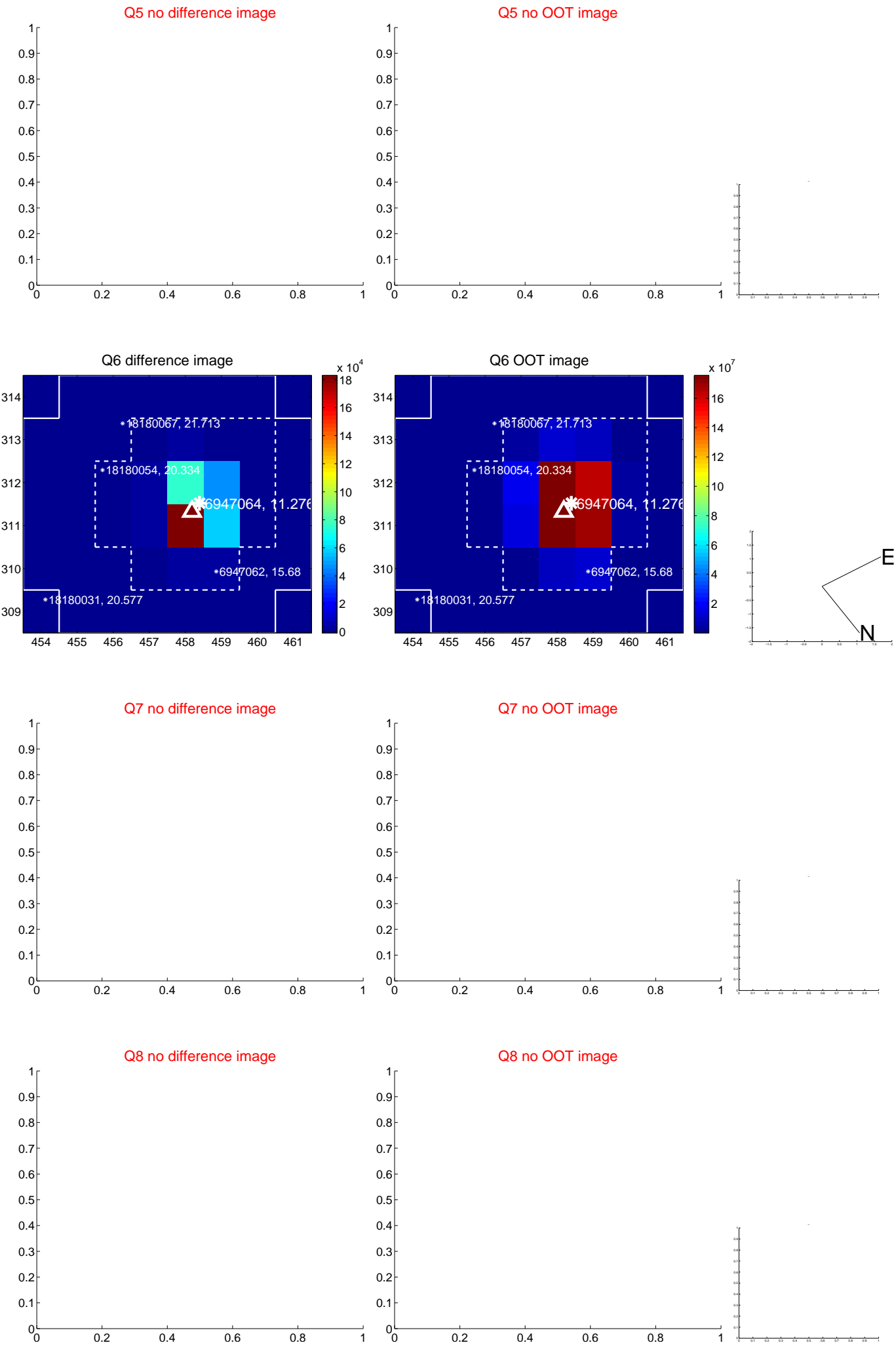


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

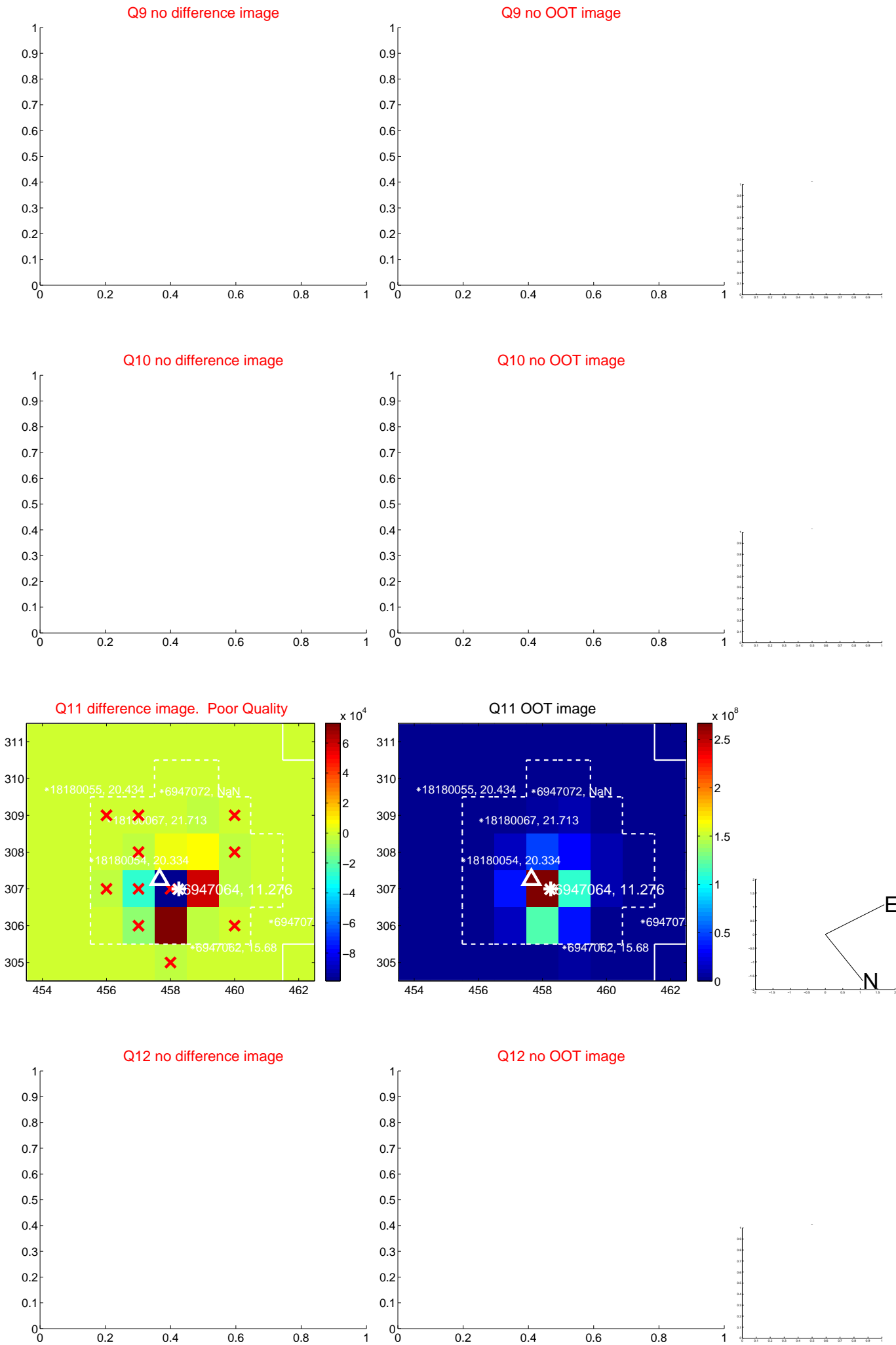
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



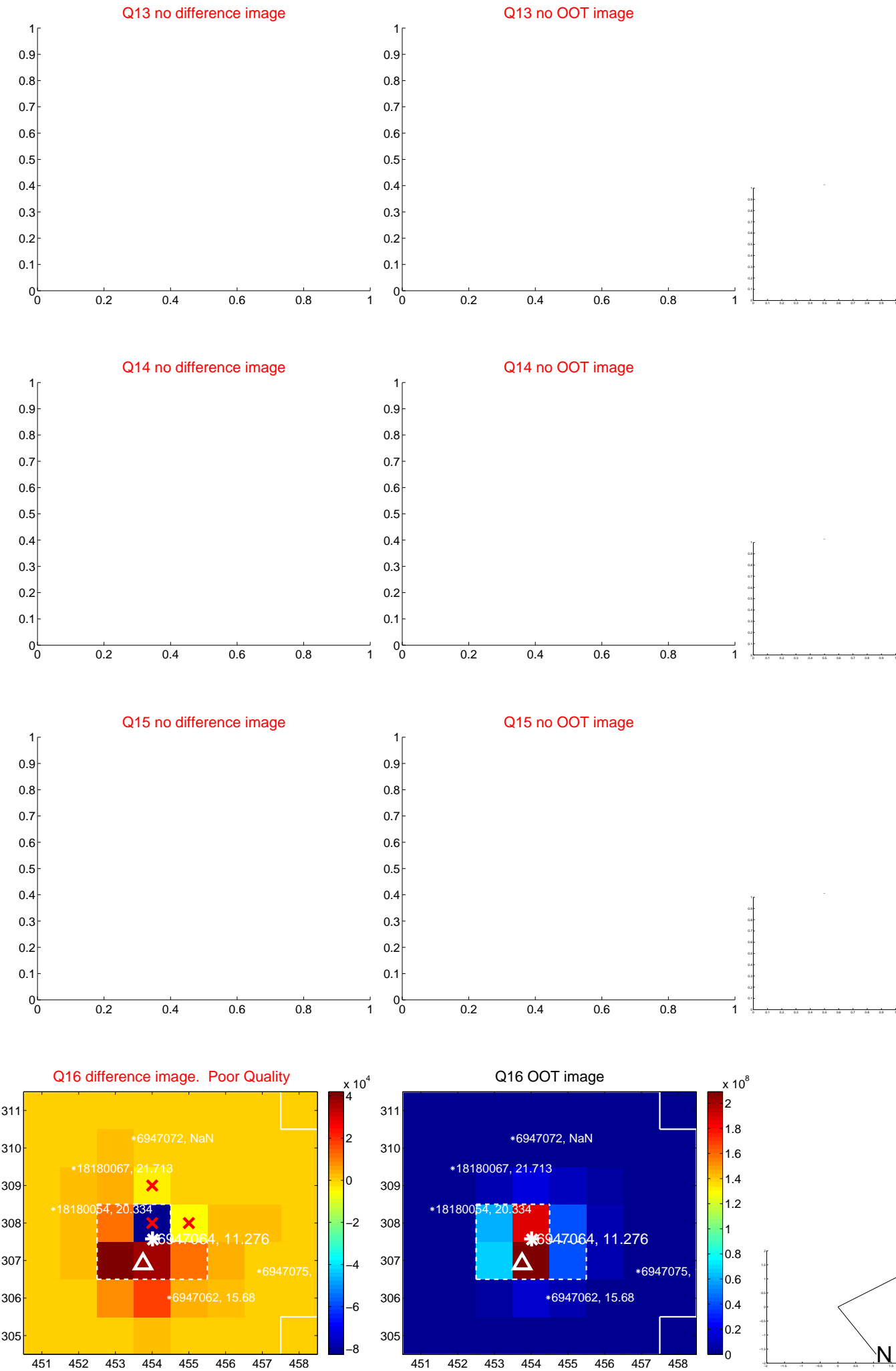
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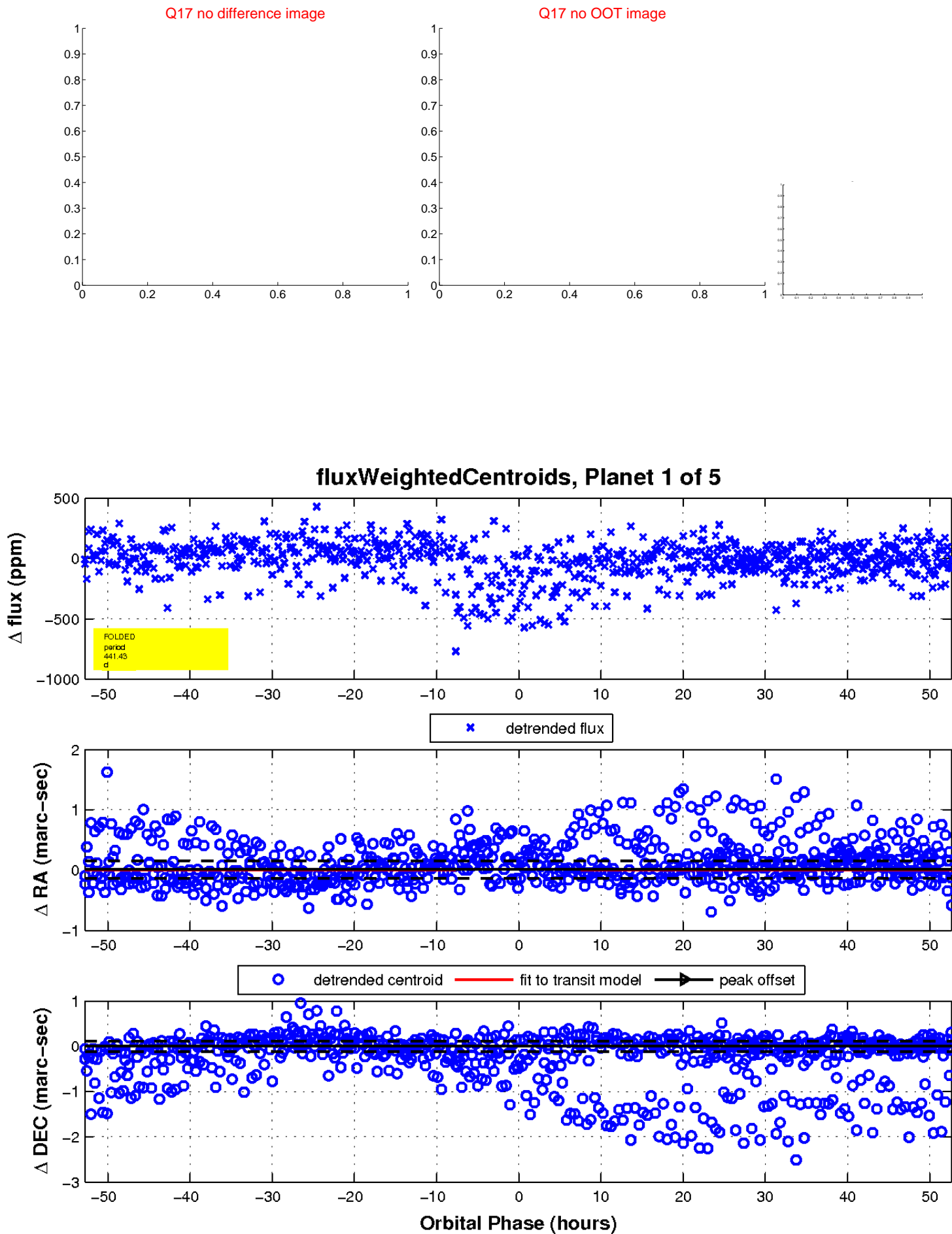
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



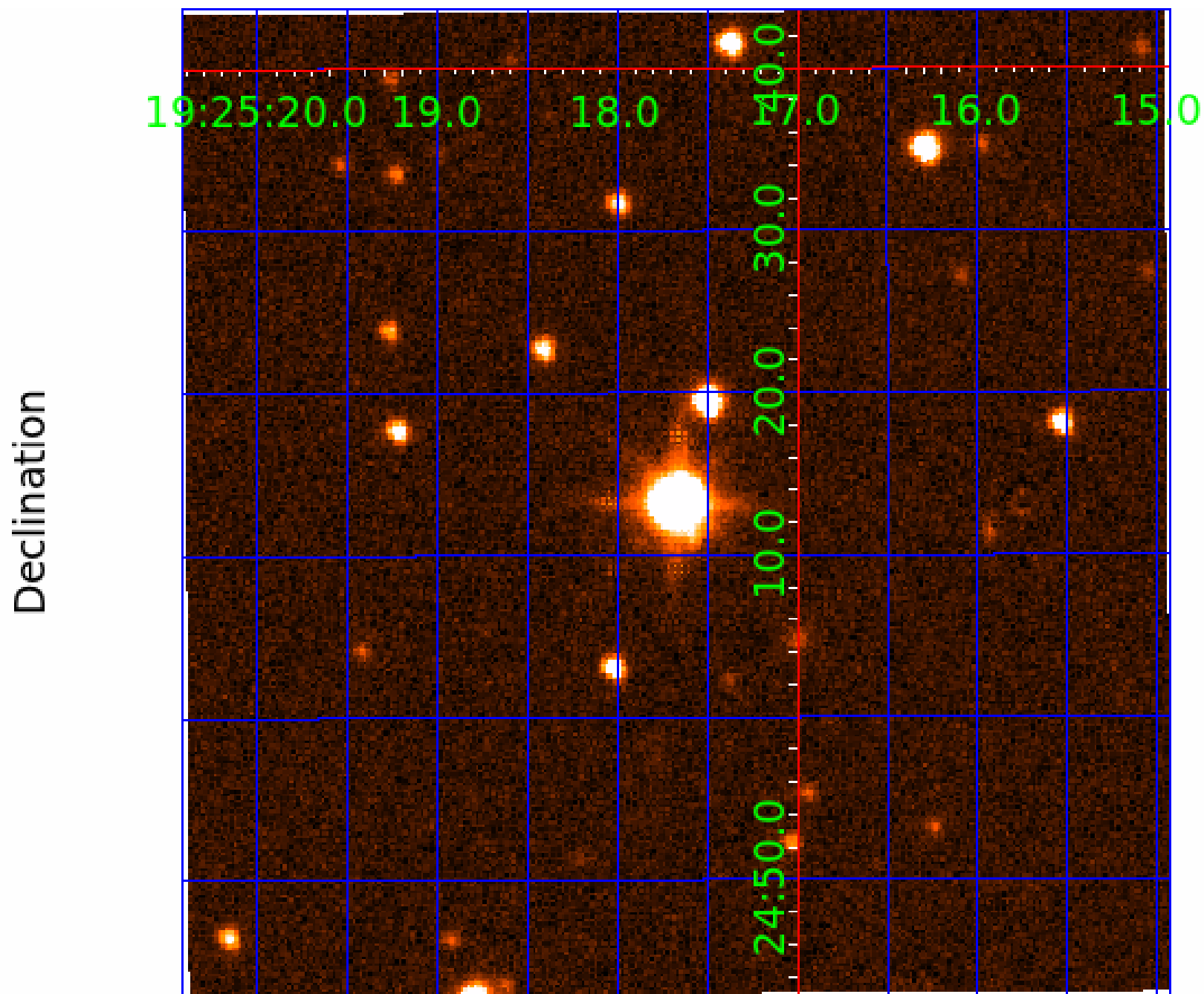
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006947064

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})
006947064-01	OBS	No	441.434847	168.827594	201.7	17.595	22.8	13.7	2.66	8392	4.29	14.71
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006947064-05	OBS	No	82.263943	138.604381	170.9	6.687	18.1	12.8	2.66	8392	3.77	138.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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006947064-02	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—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
006947064-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

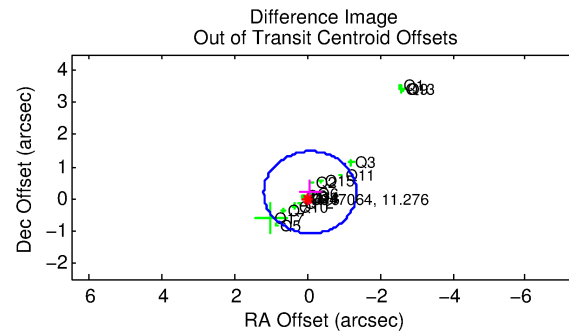
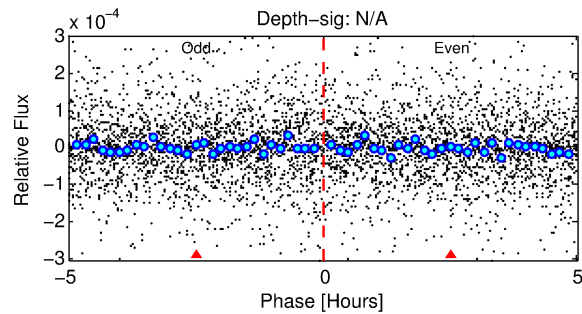
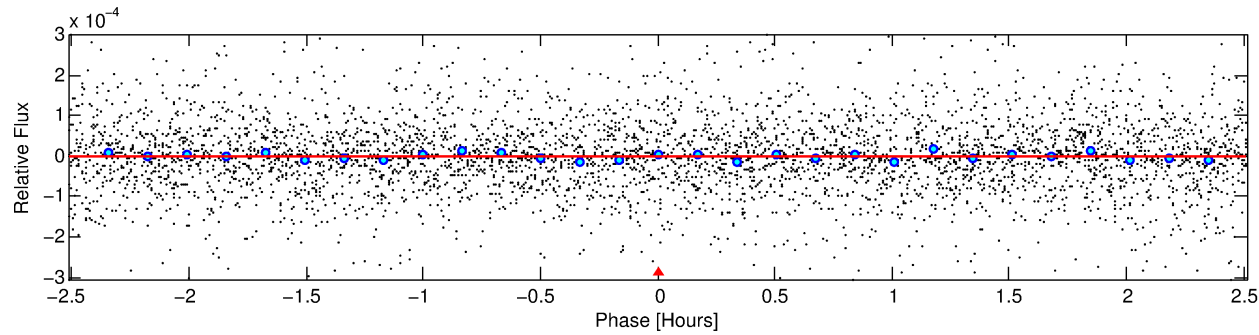
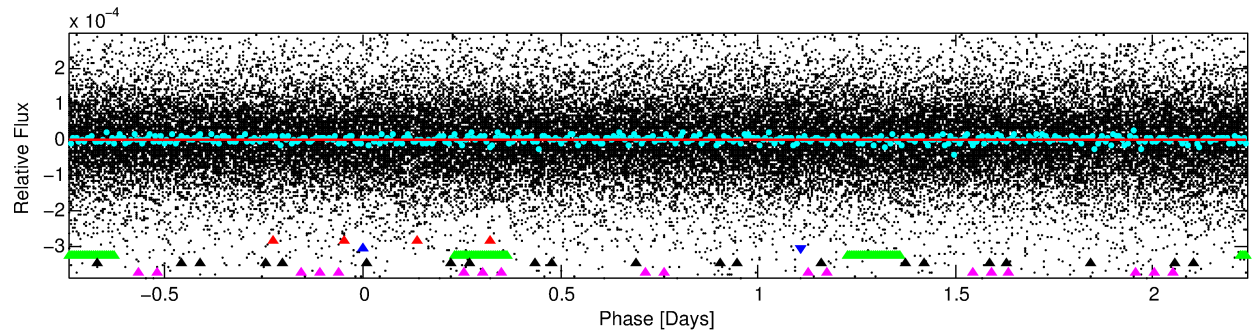
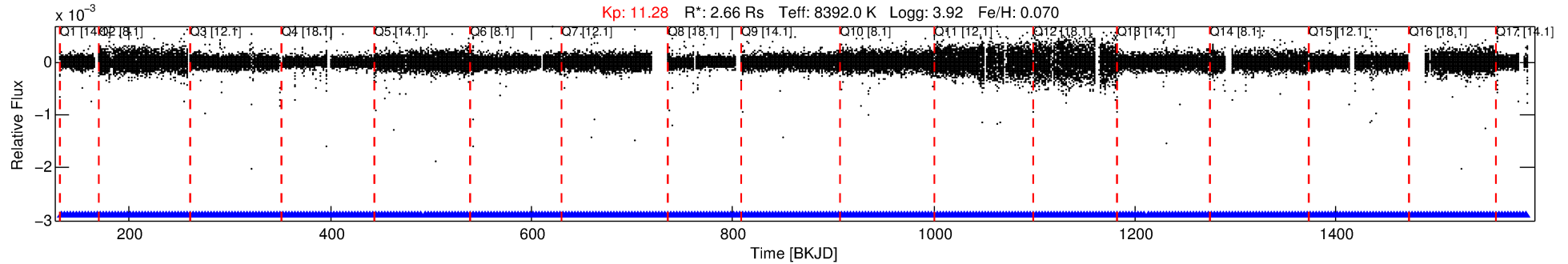
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006947064-02

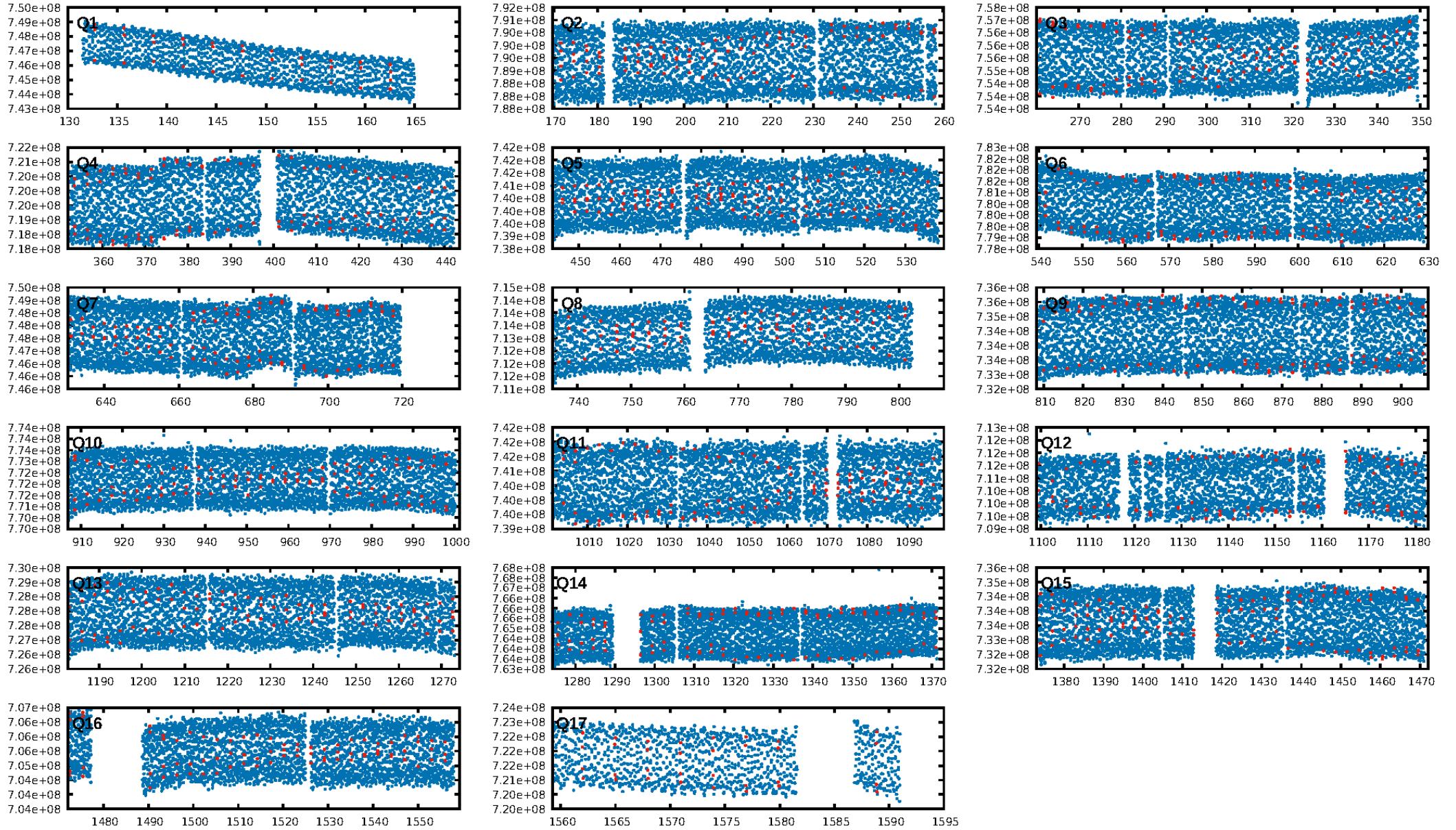
No Significant Match Found

DV One-Page Summary

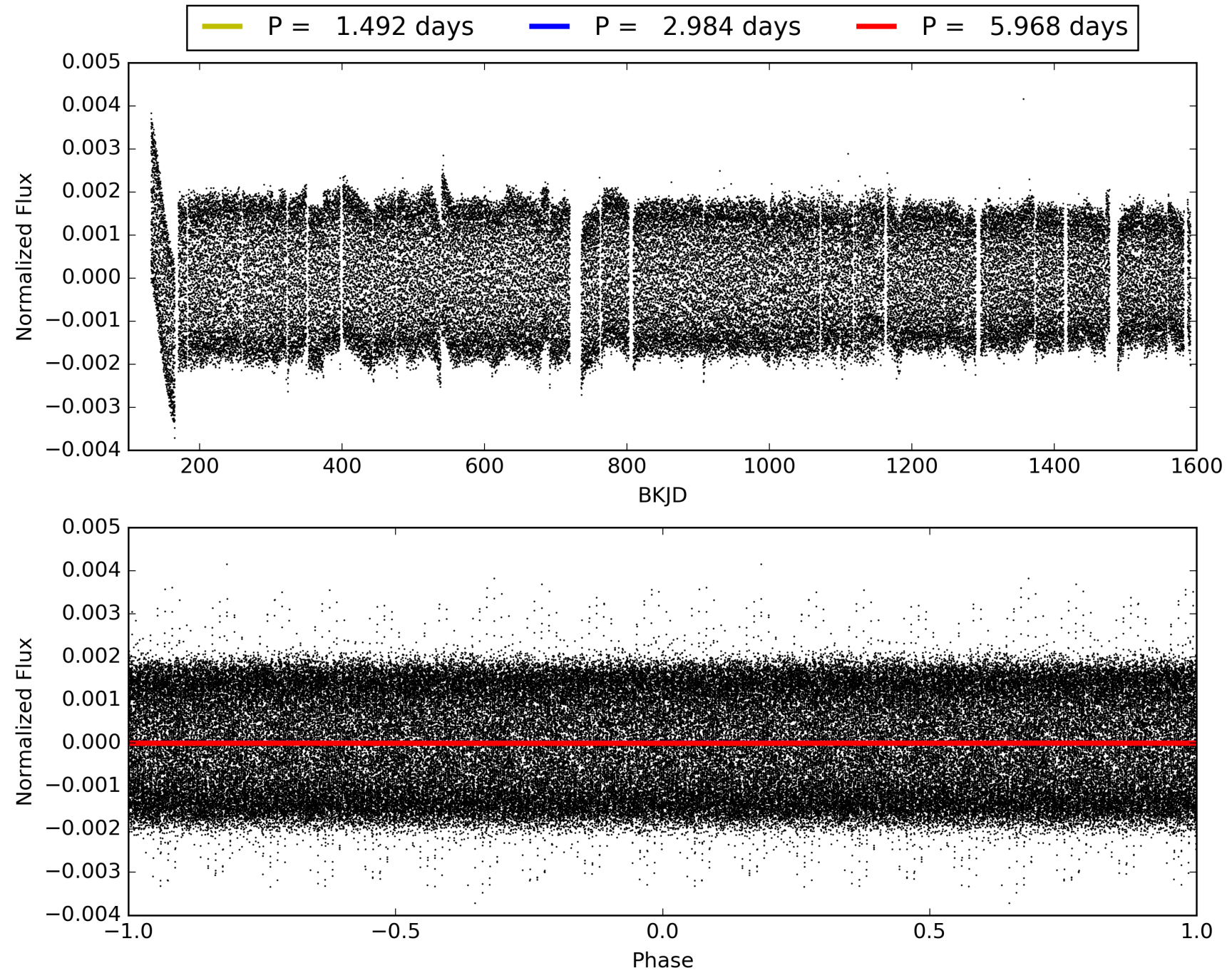
KIC: 6947064 Candidate: 2 of 5 Period: 2.984 d



TCE 006947064-02, PDC Light Curves

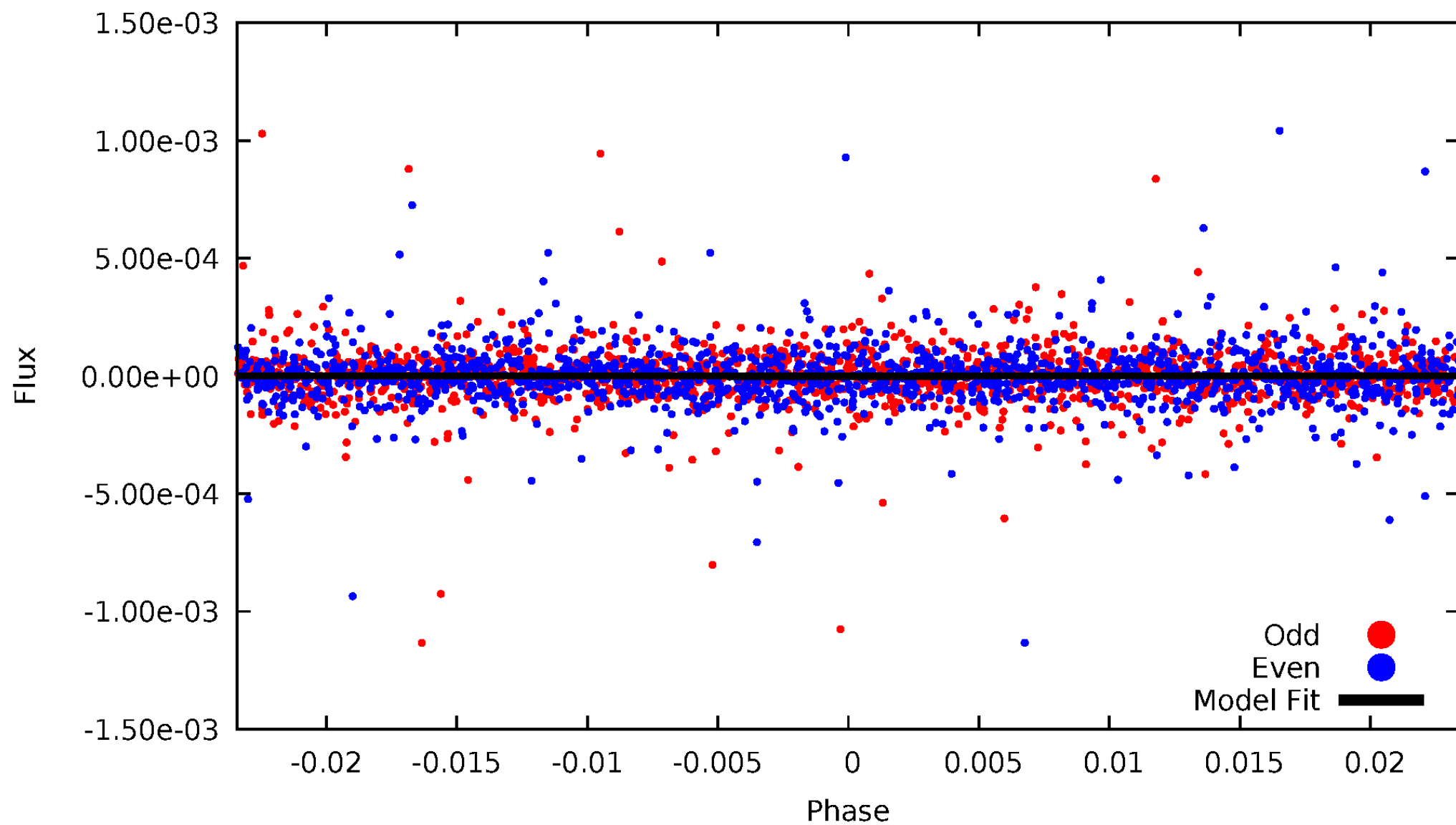


TCE 006947064-02



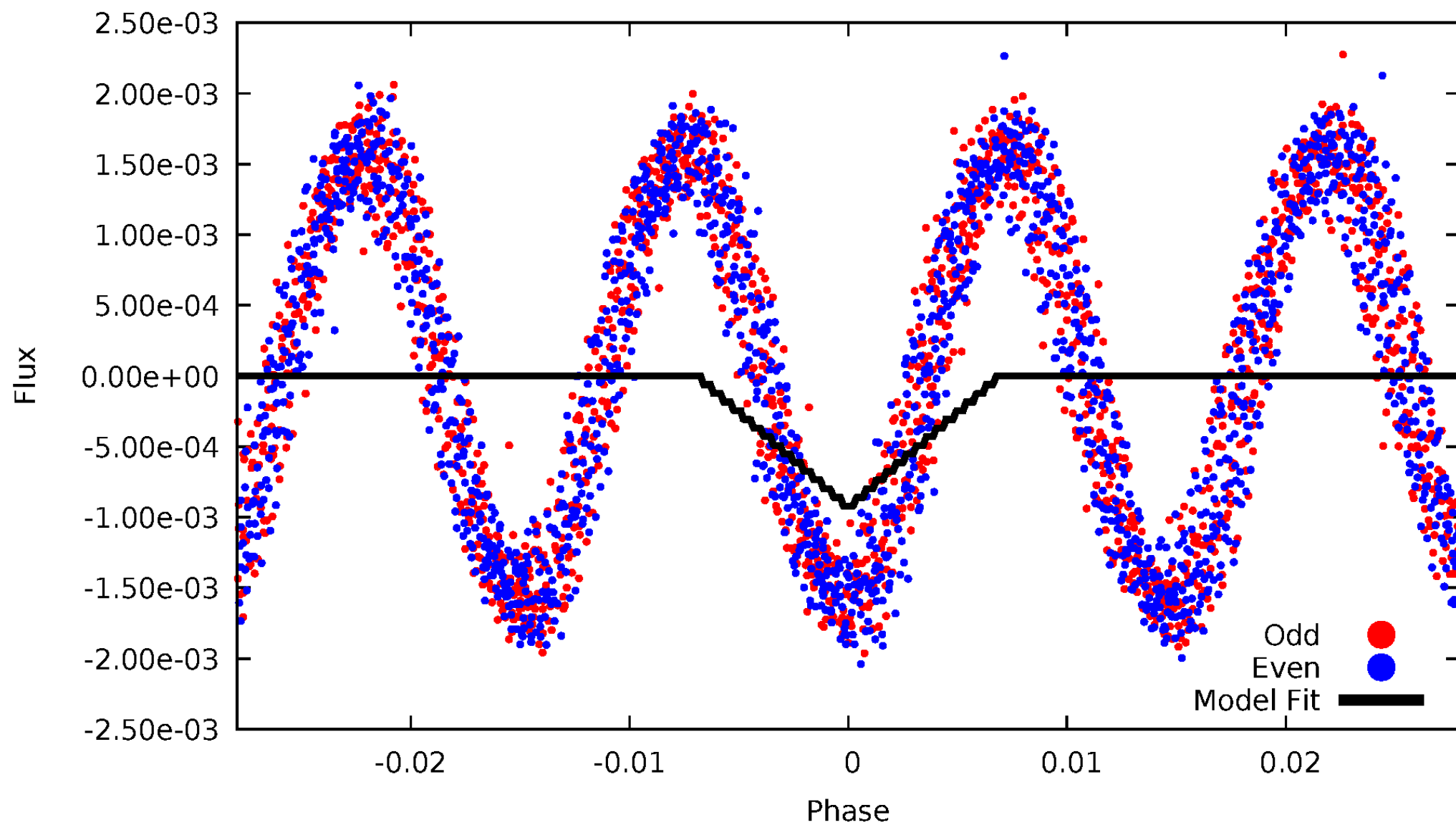
DV Odd/Even

TCE 006947064-02



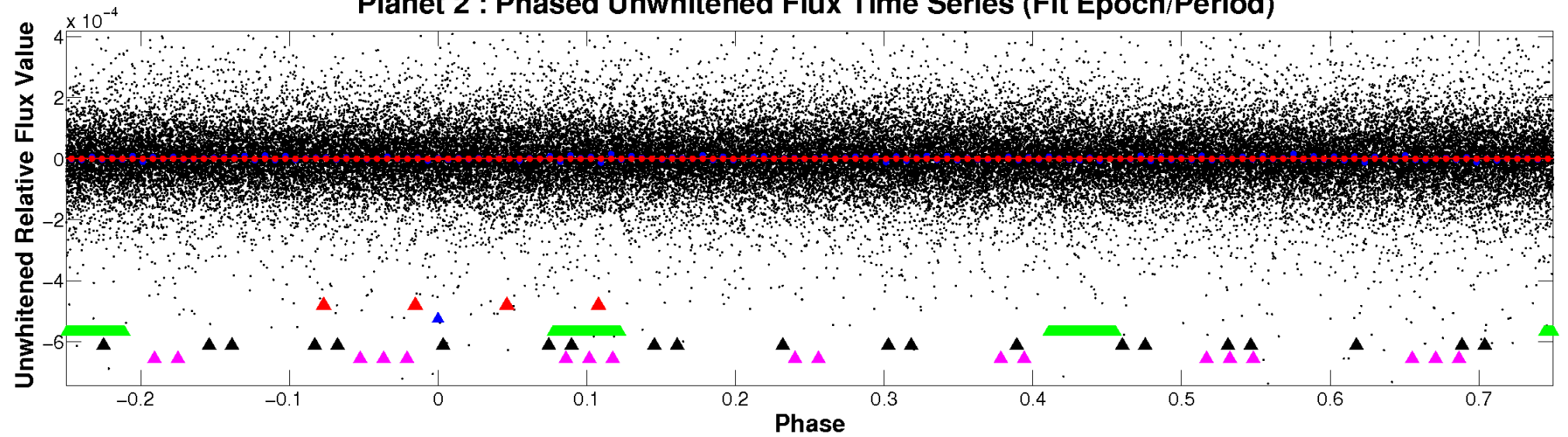
ALT Odd/Even

TCE 006947064-02

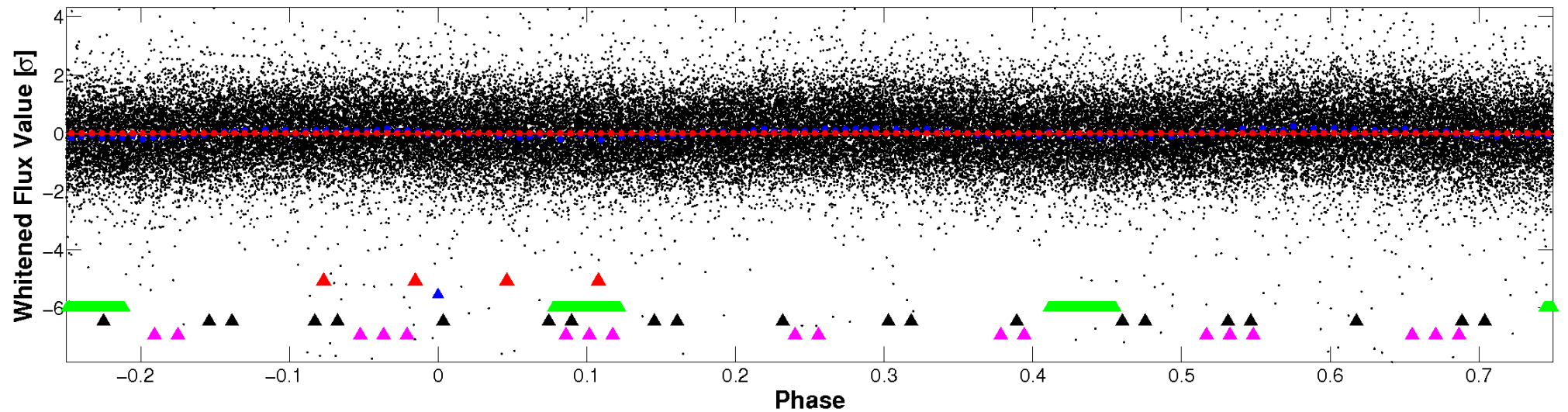


Non-Whitened Vs. Whitened Light Curve

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

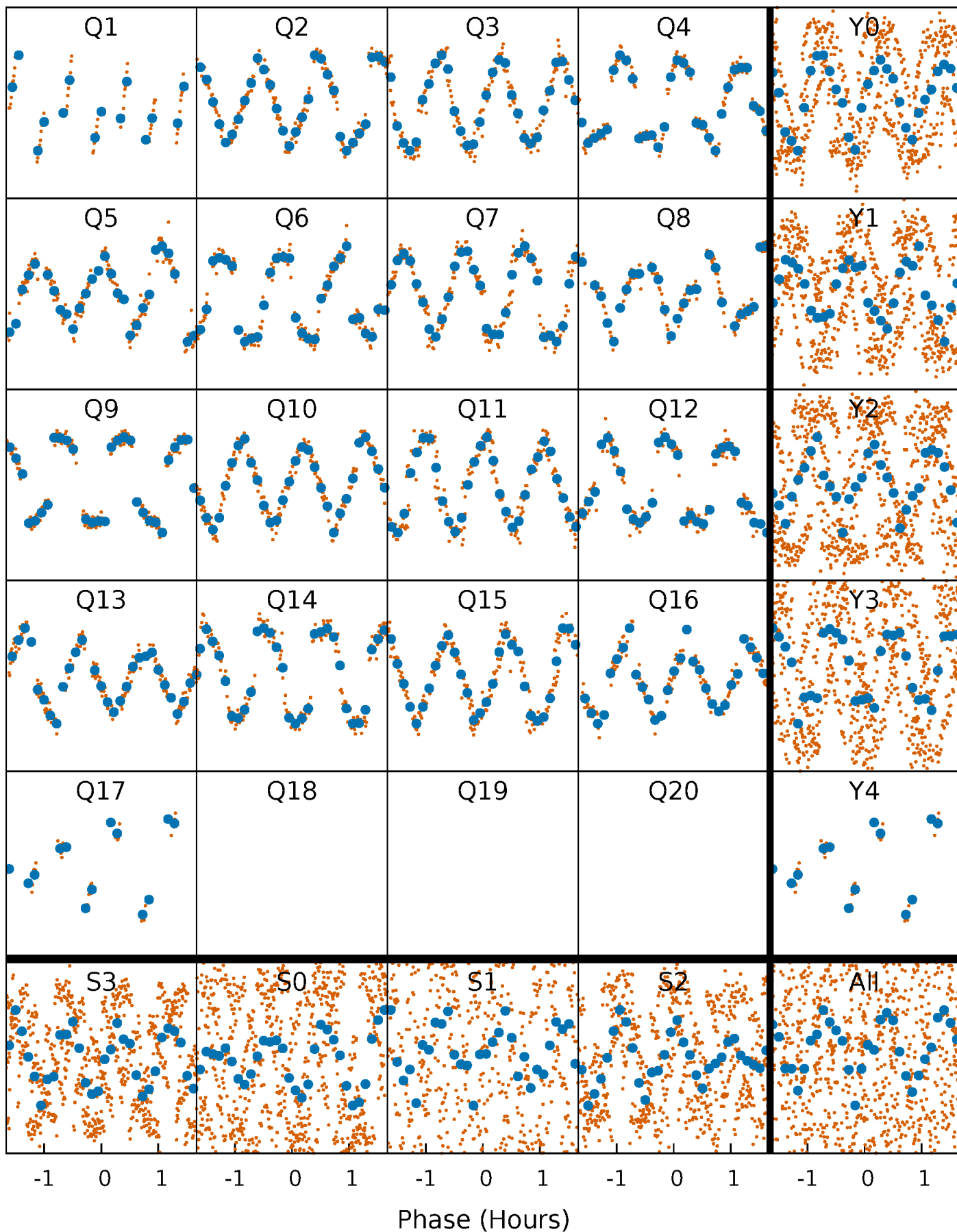


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



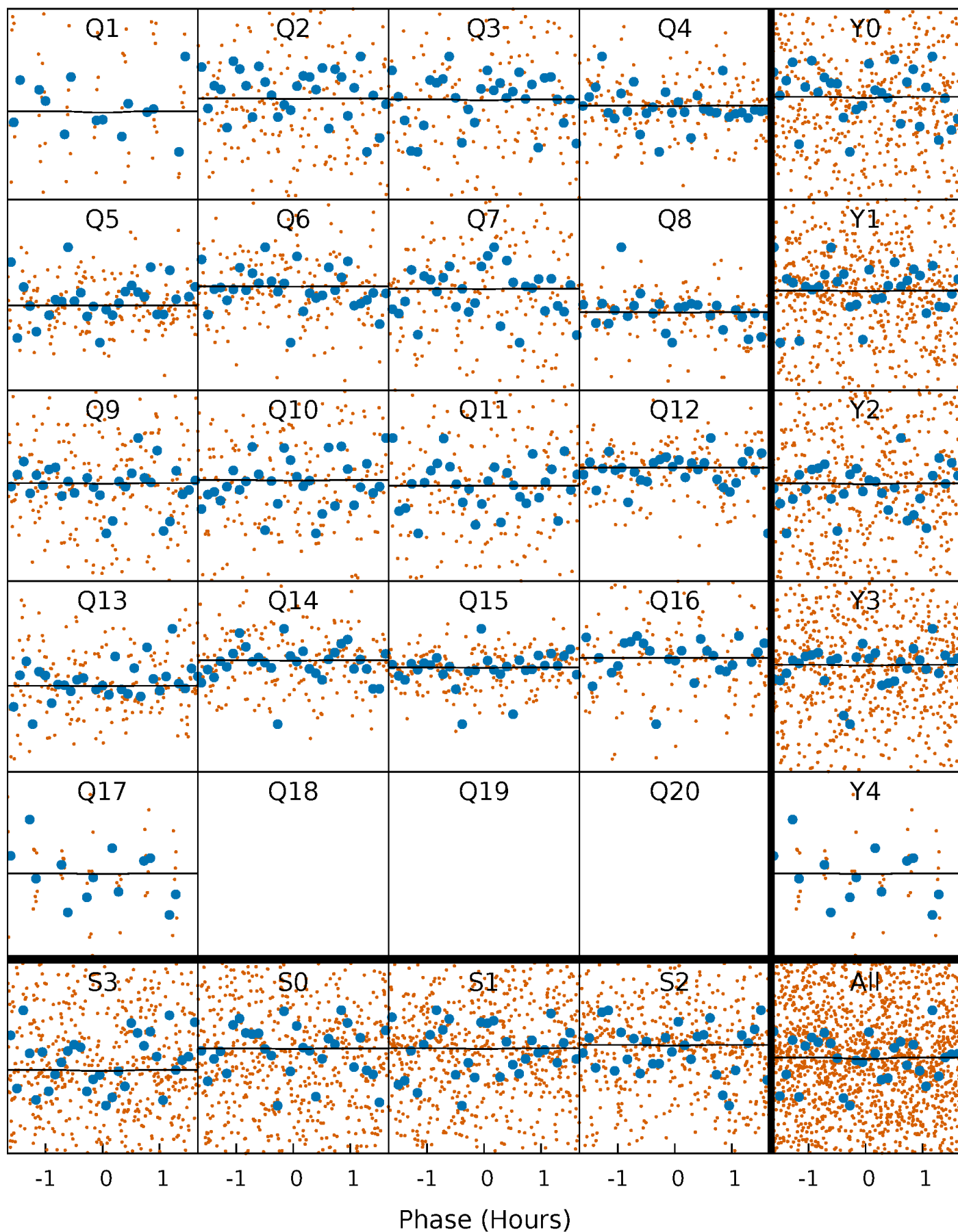
PDC Quarter-Phased Transit Curves

TCE 006947064-02 P= 2.983910 Days $T_0=132.698816$ (BKJD)



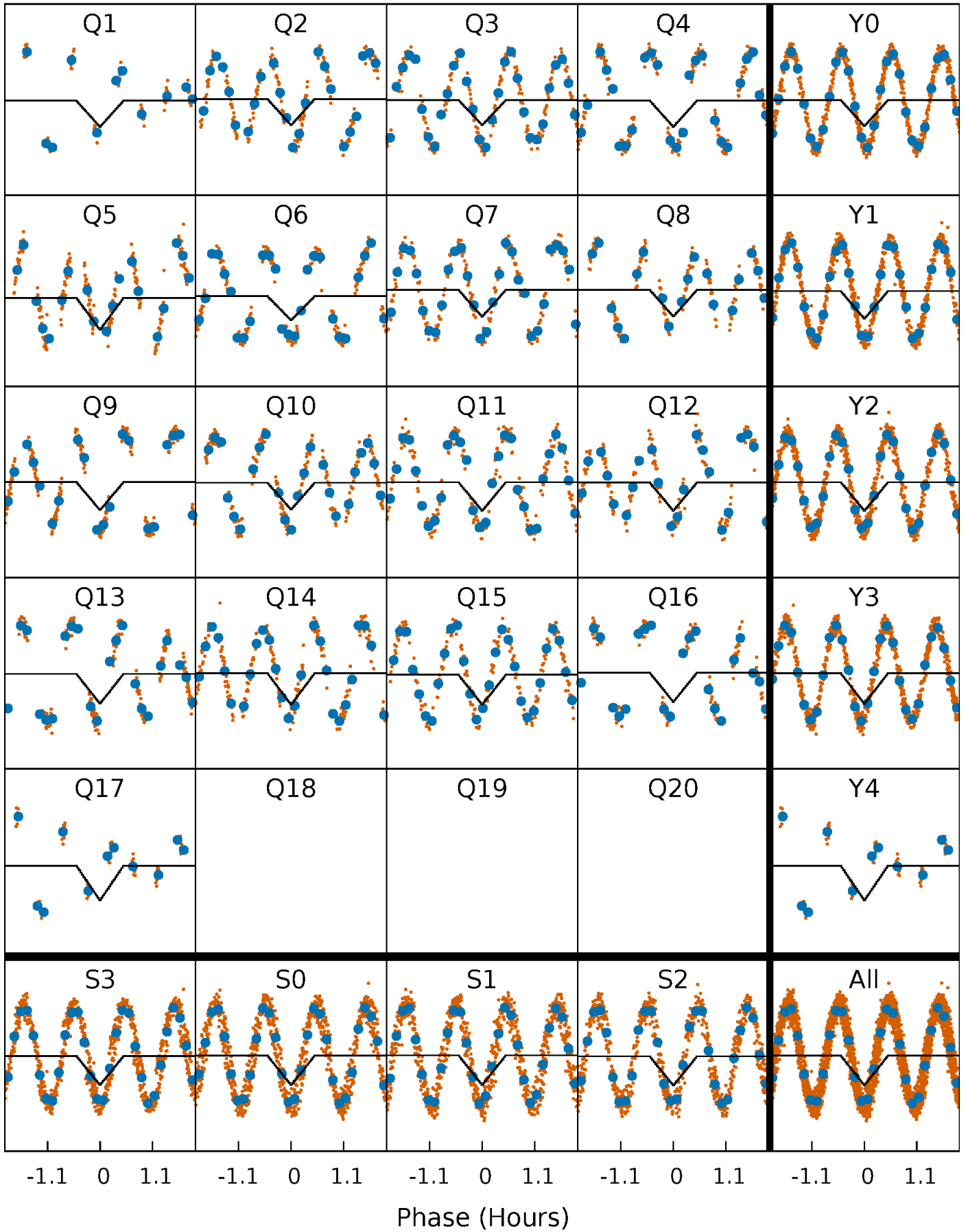
DV Quarter-Phased Transit Curves

TCE 006947064-02 P= 2.983910 Days $T_0=132.698816$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

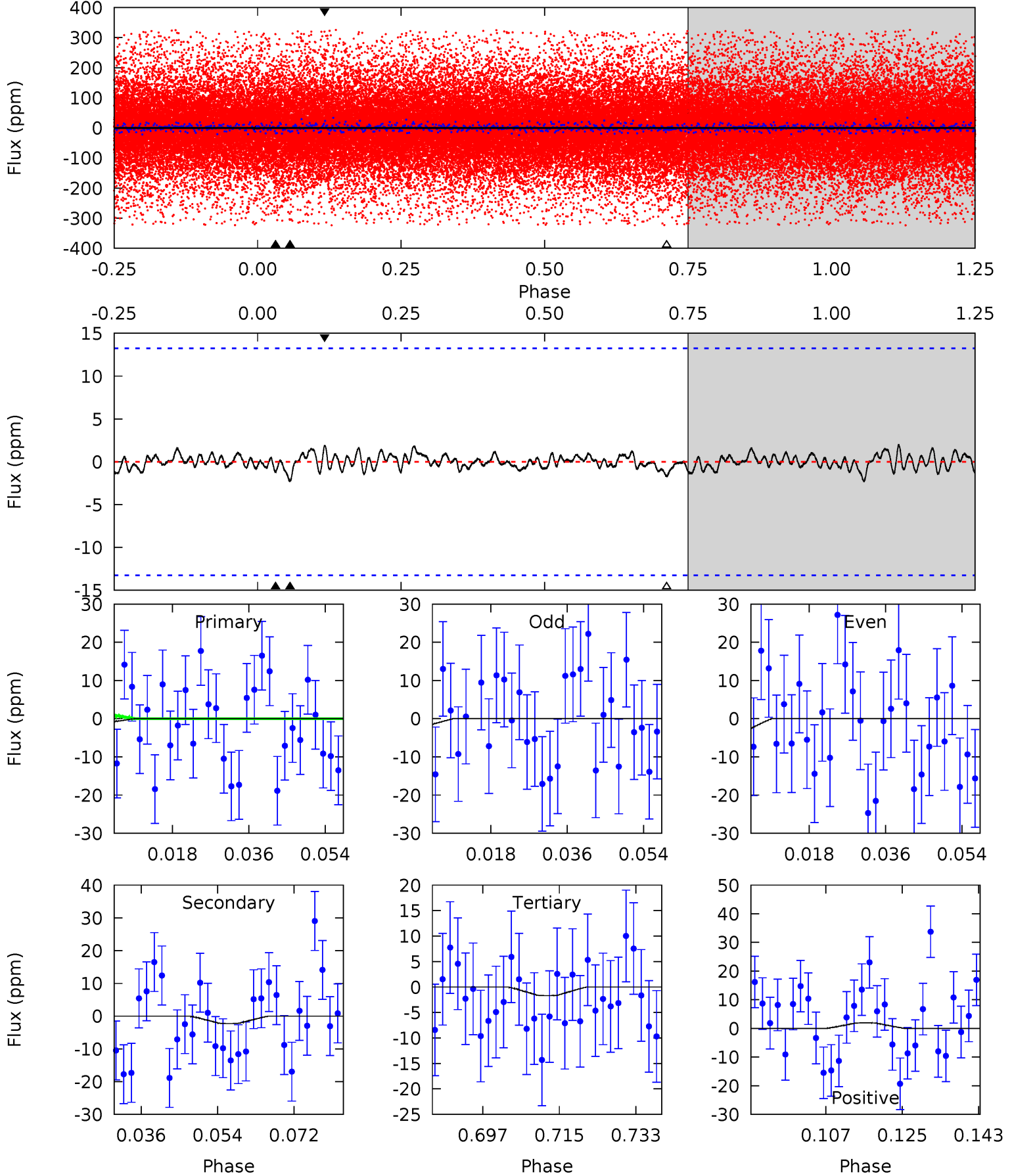
TCE 006947064-02 P= 2.983701 Days $T_0=132.699972$ (BKJD)



DV Model-Shift Uniqueness Test

006947064-02, P = 2.983910 Days, E = 129.714906 Days

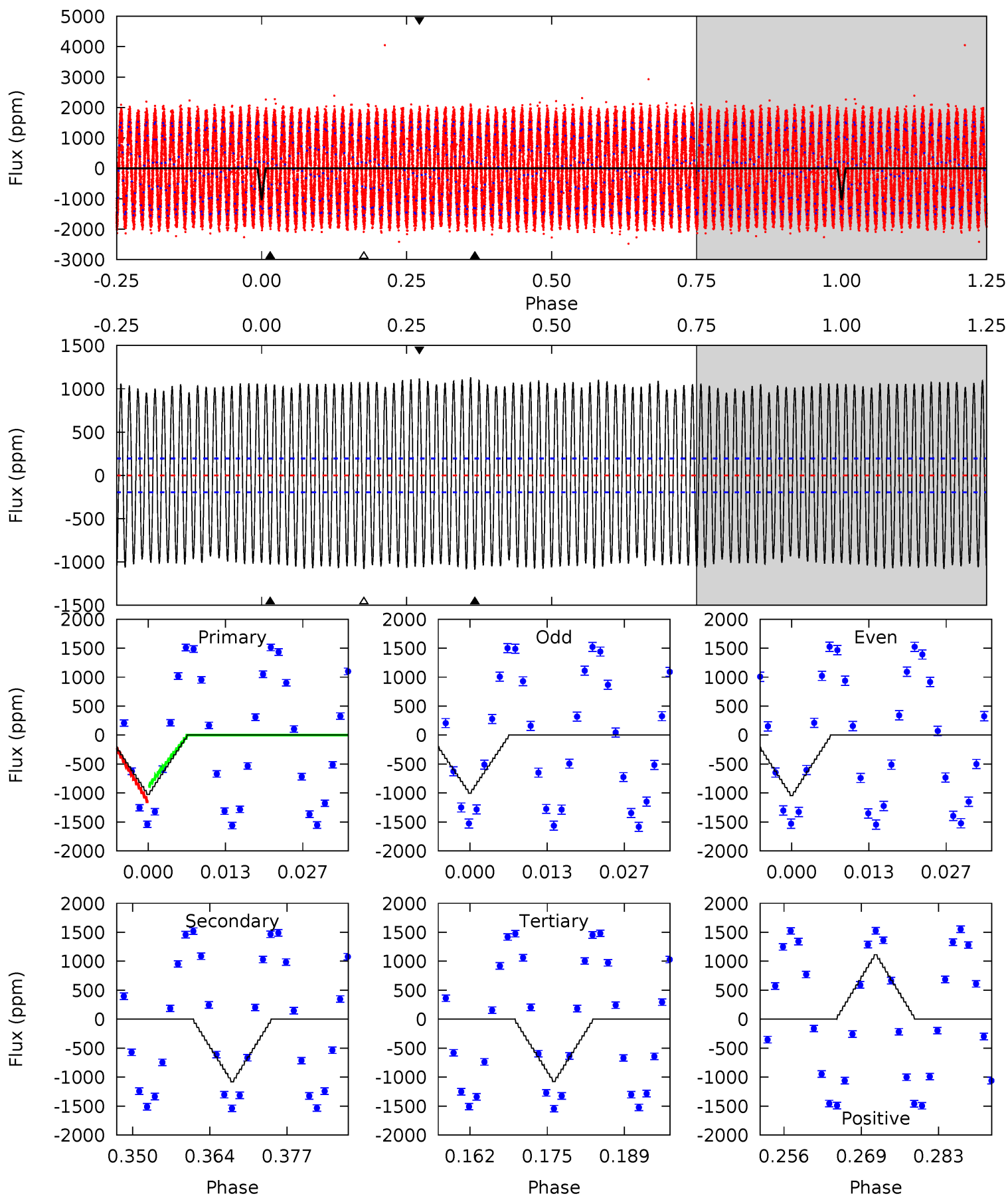
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.45	0.84	0.63	0.73	4.91	2.37	0.25	-0.18	-0.28	0.21	0.11	0.30	1.55	0.46	0.44



Alt Model-Shift Uniqueness Test

006947064-02, P = 2.983701 Days, E = 129.716271 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	27.6	27.4	28.4	4.97	2.47	18.7	-1.34	-2.31	0.15	-0.82	0.54	1.01	0.51	3.39



Stellar Parameters For KIC 006947064

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8392^{+231}_{-363}	$3.919^{+0.240}_{-0.140}$	$0.070^{+0.250}_{-0.500}$	$2.664^{+0.726}_{-0.968}$	$2.149^{+0.306}_{-0.524}$	$0.160^{+0.277}_{-0.067}$
	+3%/-4%	+6%/-4%	+357%/-714%	+27%/-36%	+14%/-24%	+173%/-42%
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 006947064-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 3	$0.49^{+0.49}_{-0.33}$	3647^{+279}_{-350}	6638^{+11198}_{-11151}	$9.279^{+105.829}_{-10.369}$
Alt.	-1082 ± 39	$8.75^{+1.46}_{-1.56}$	3640^{+258}_{-300}	8722^{+539}_{-519}	22^{+9}_{-6}

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

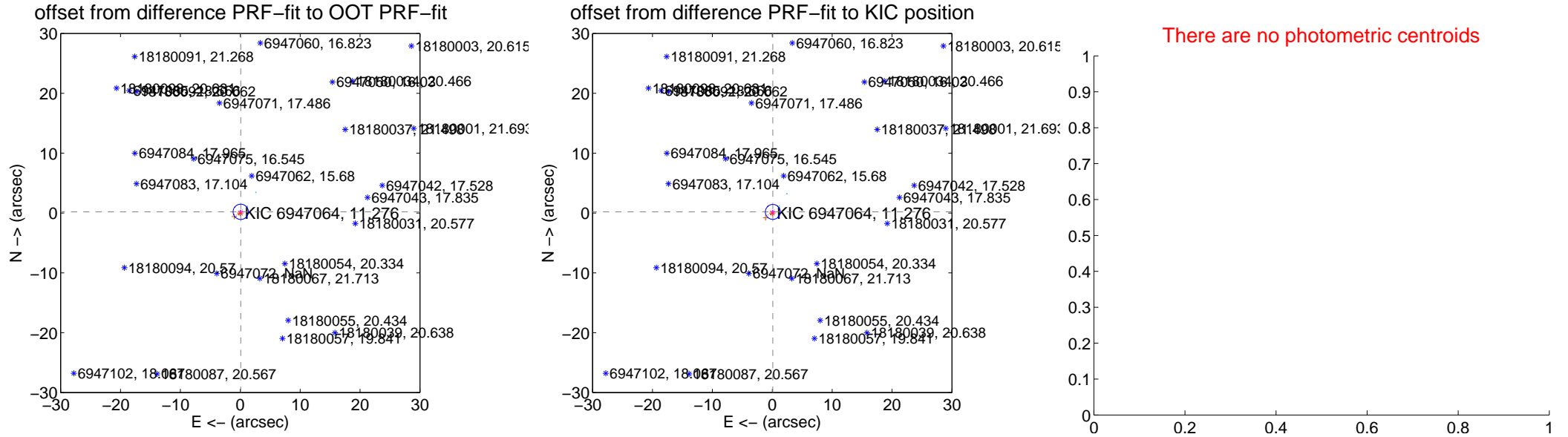
DV Centroid Data

Supplemental centroid analysis for 006947064-02. **Kepler magnitude: 11.28.** Transit SNR 0.25

There are 9 quarters with good PRF difference image offsets

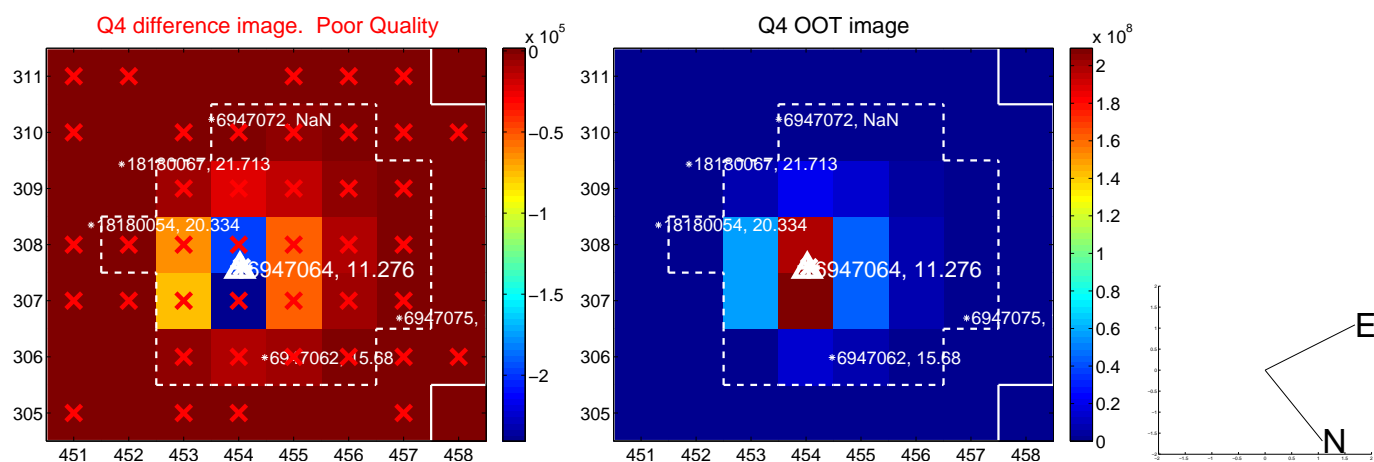
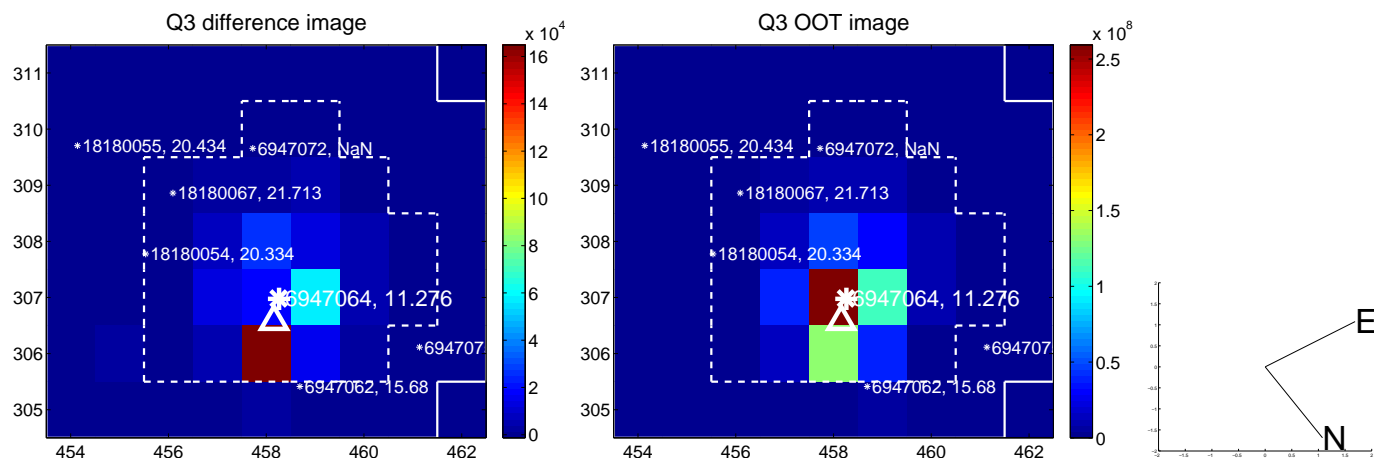
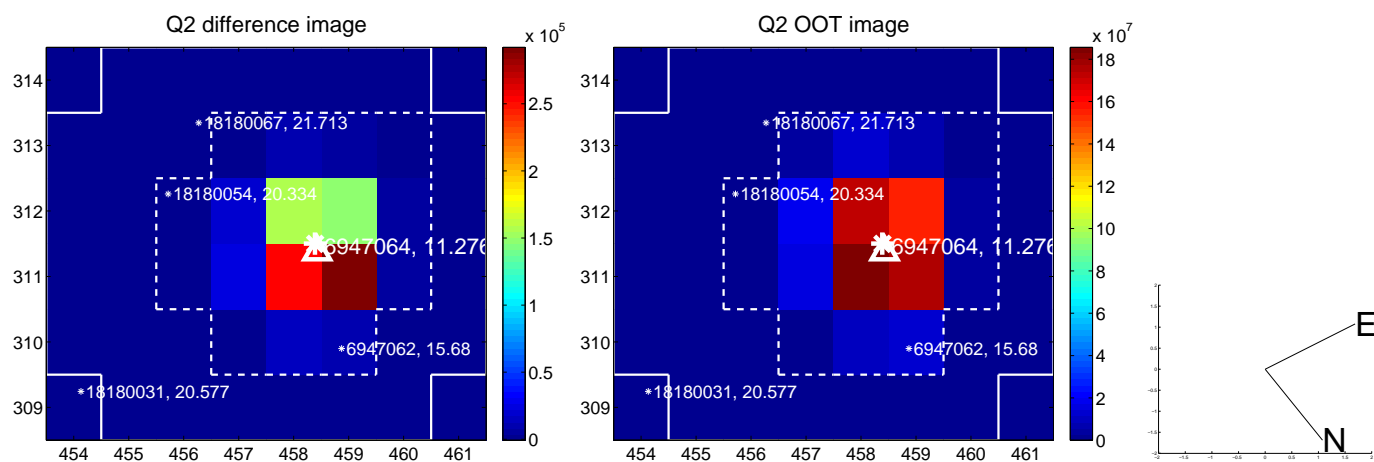
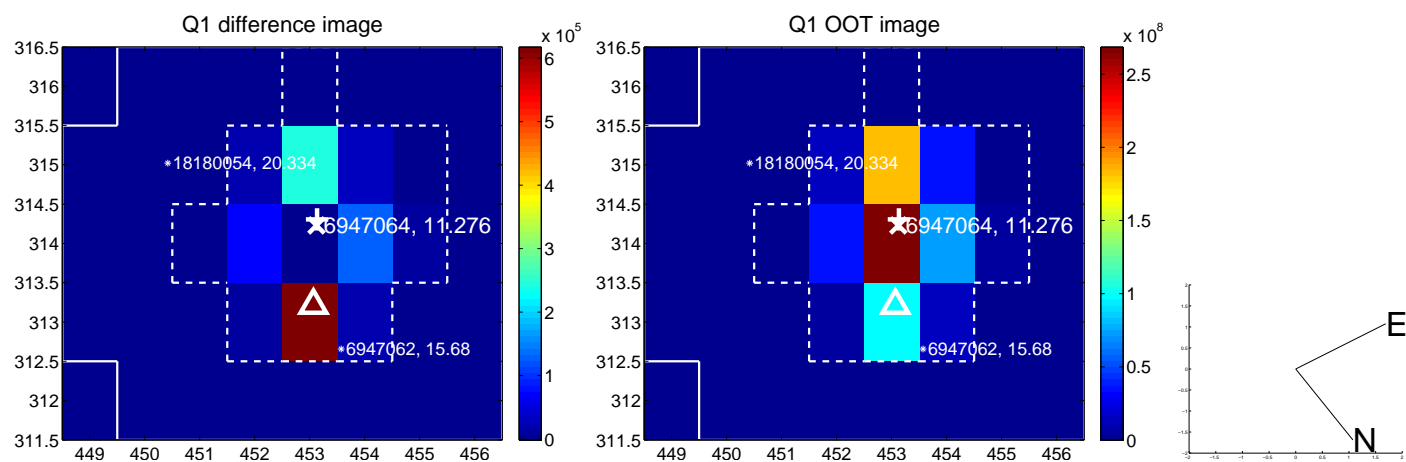
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.211 ± 0.426	0.50	-0.075 ± 0.292	0.198 ± 0.349
PRF-fit source offset from KIC position	0.209 ± 0.416	0.50	-0.098 ± 0.274	0.185 ± 0.333
photometric centroid source offset	—	—	—	—

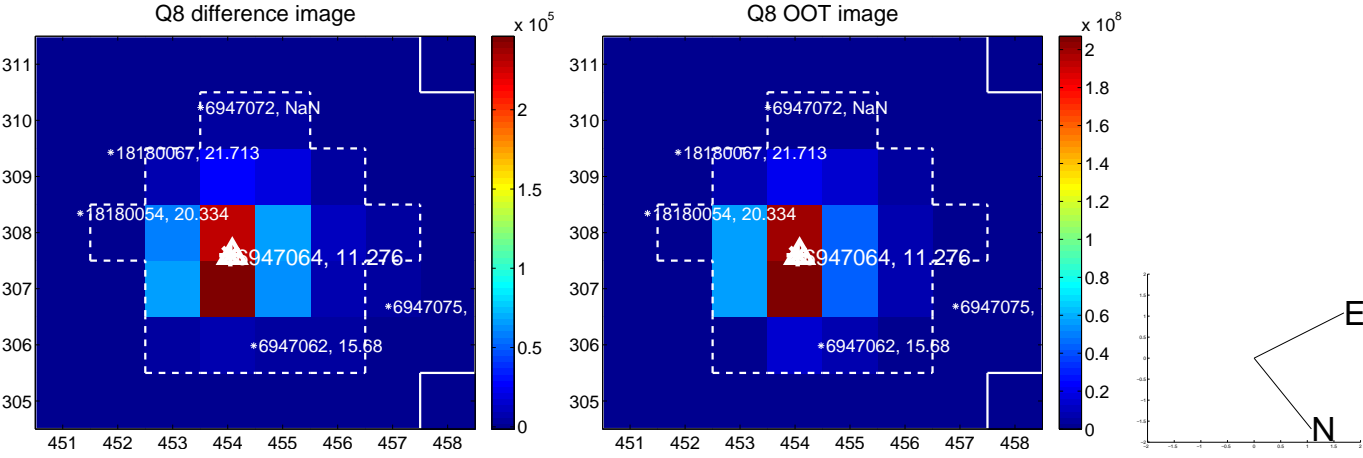
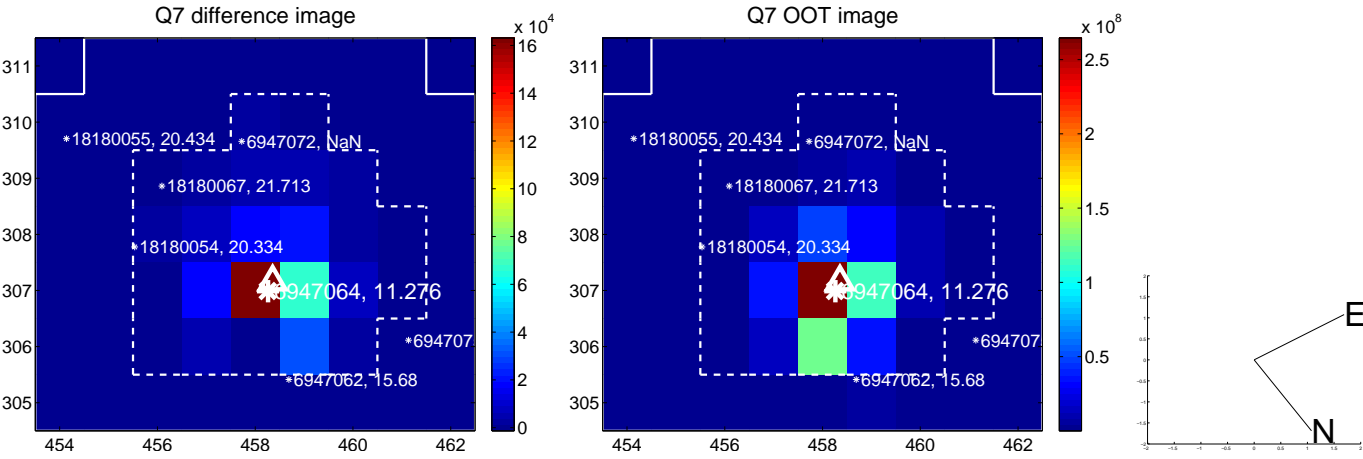
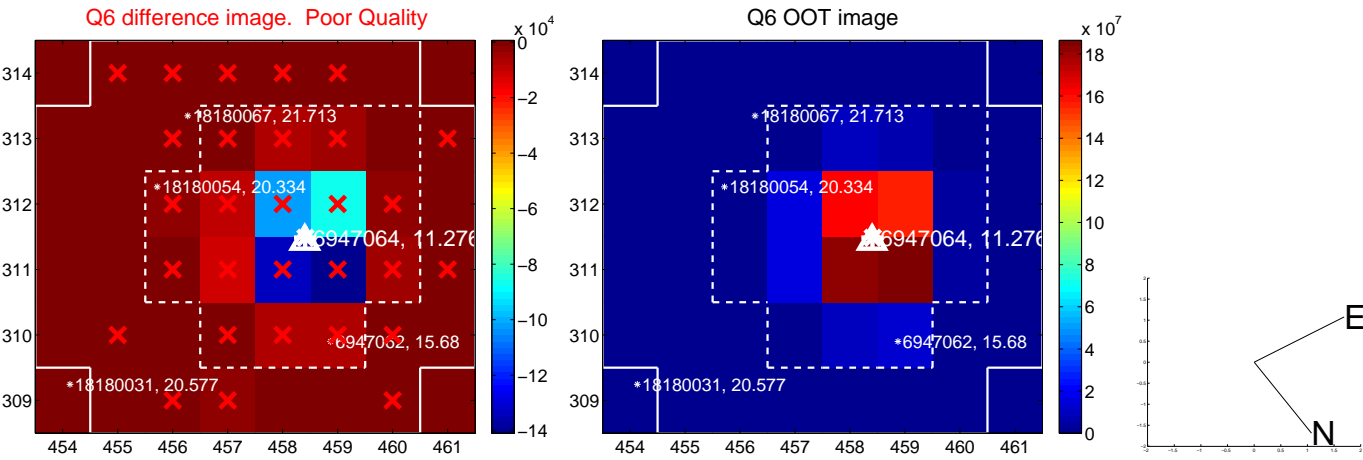
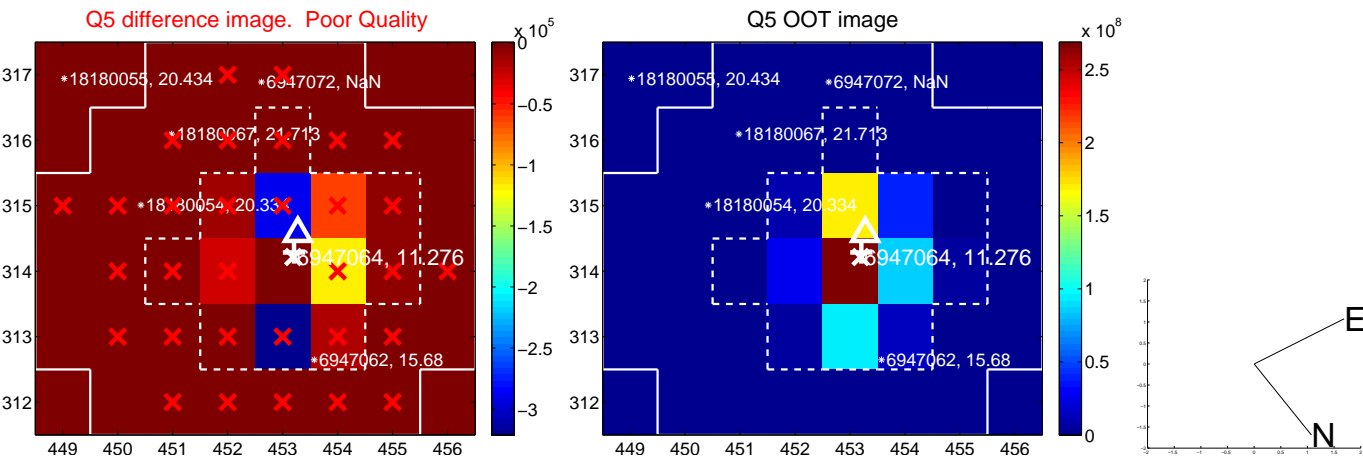


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

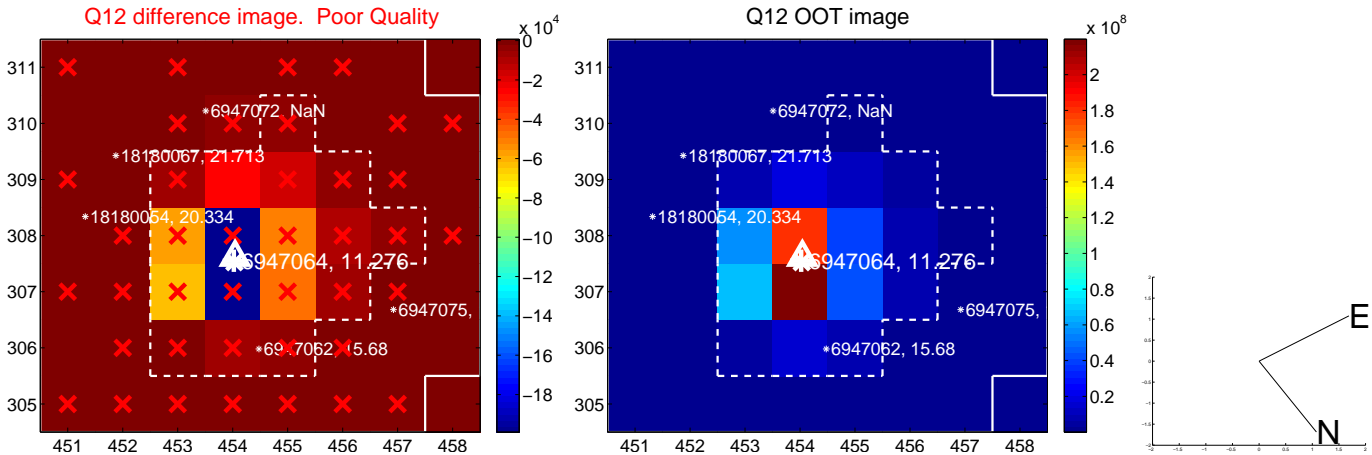
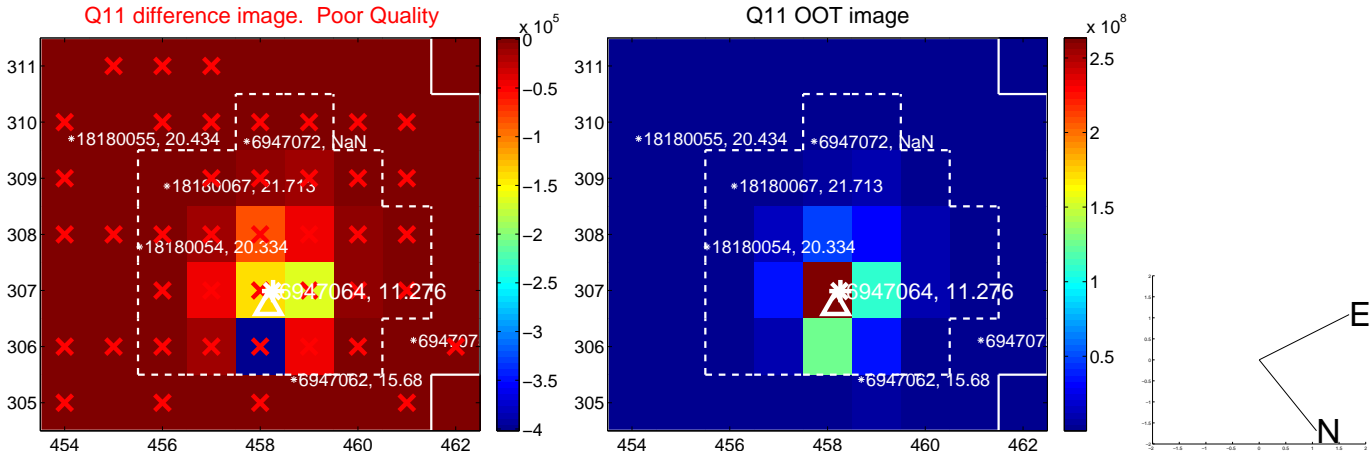
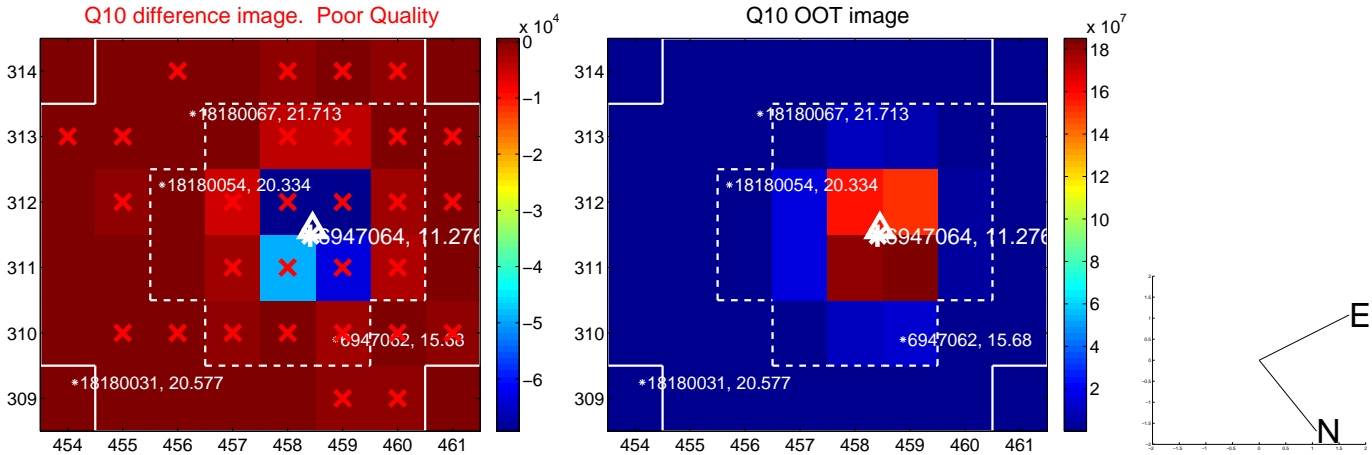
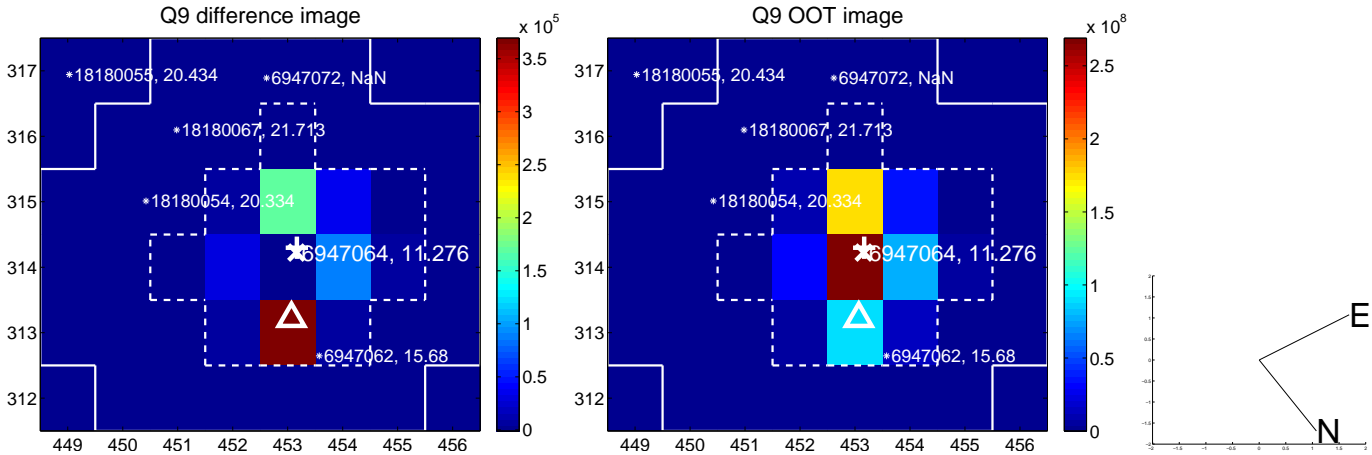
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



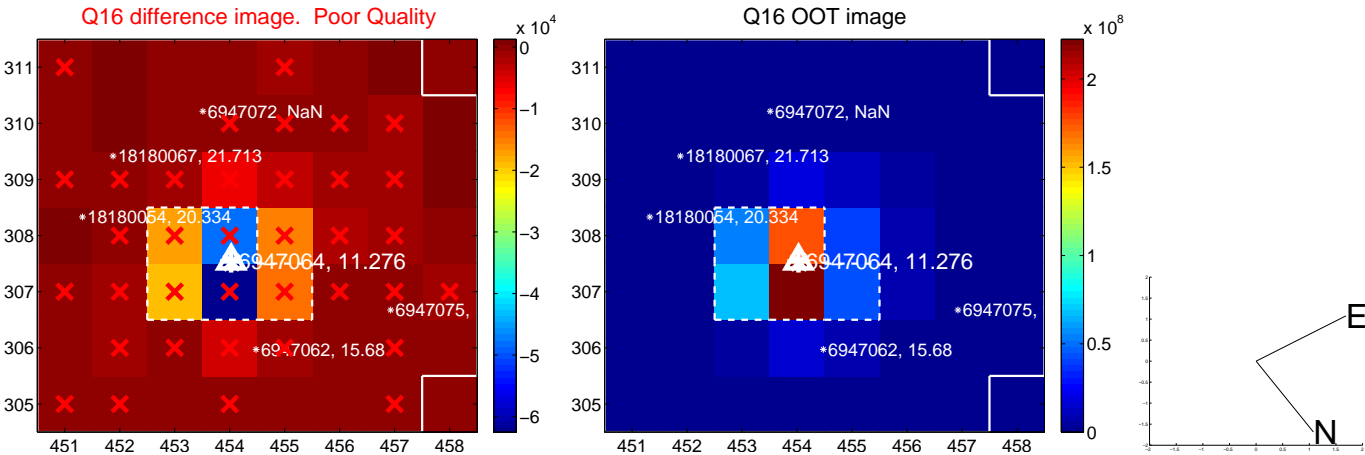
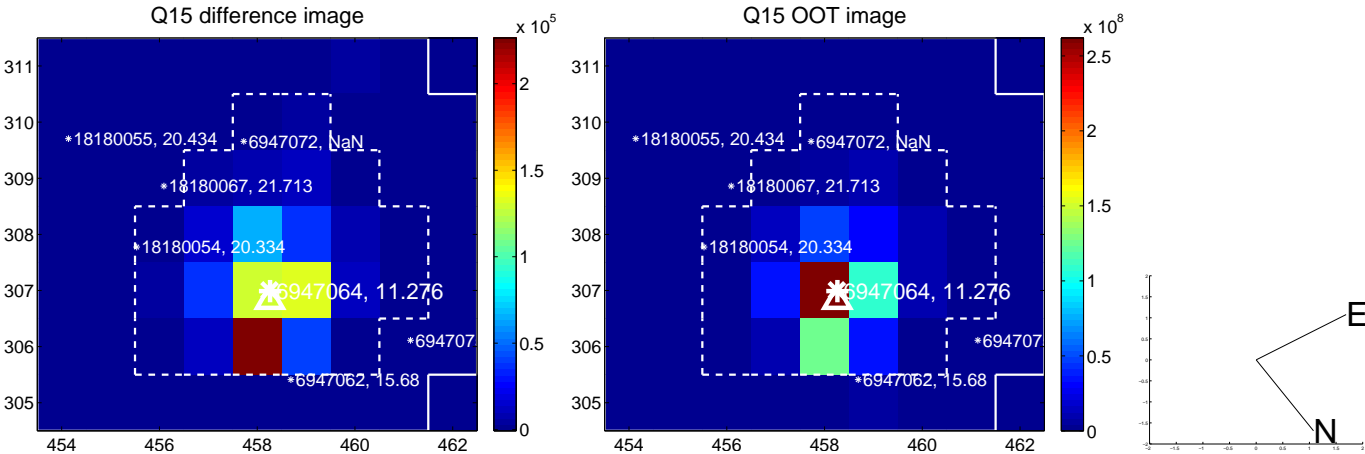
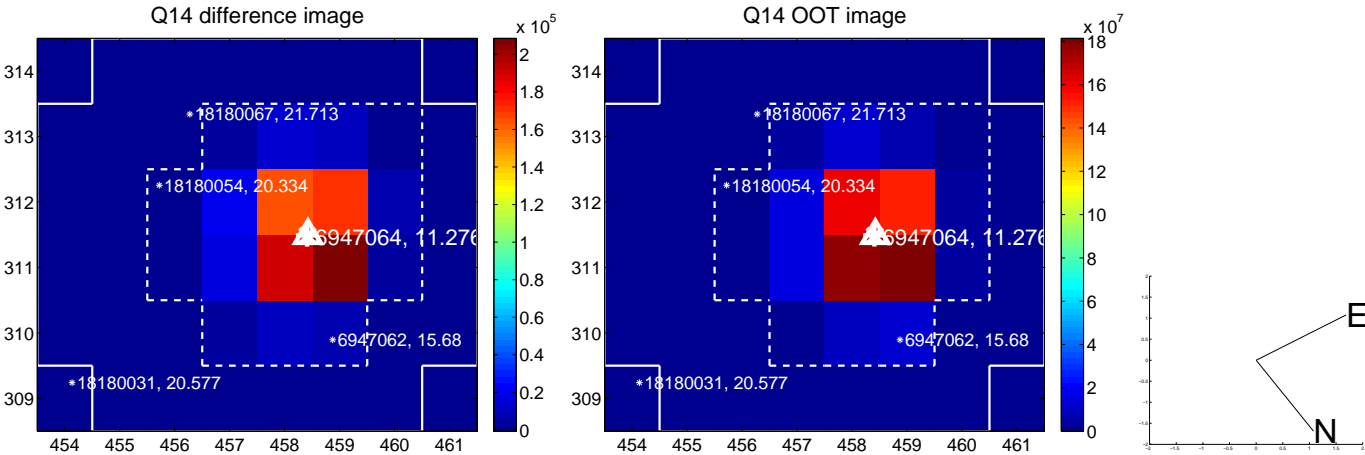
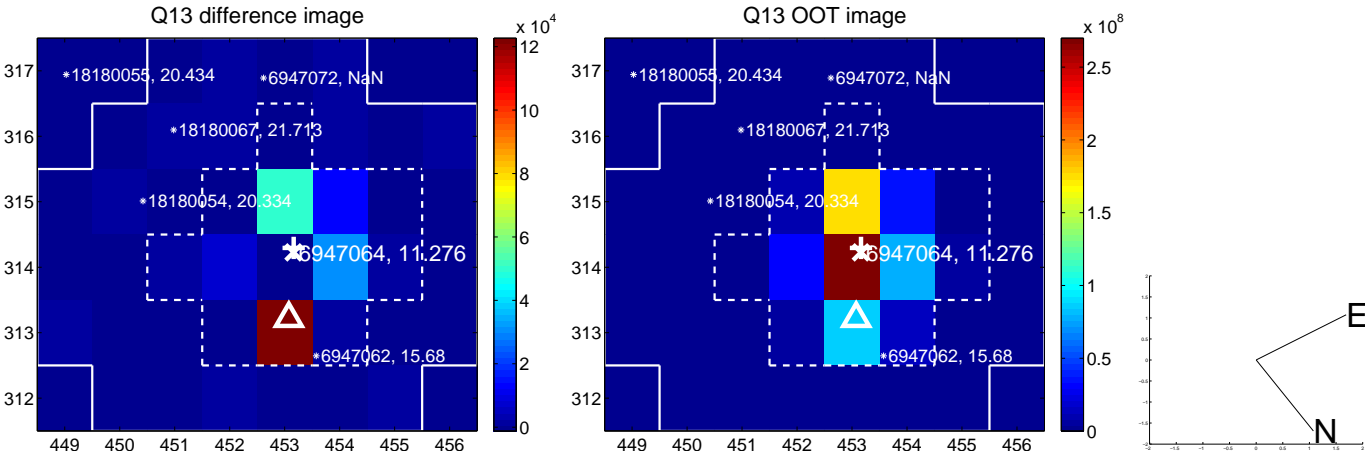
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



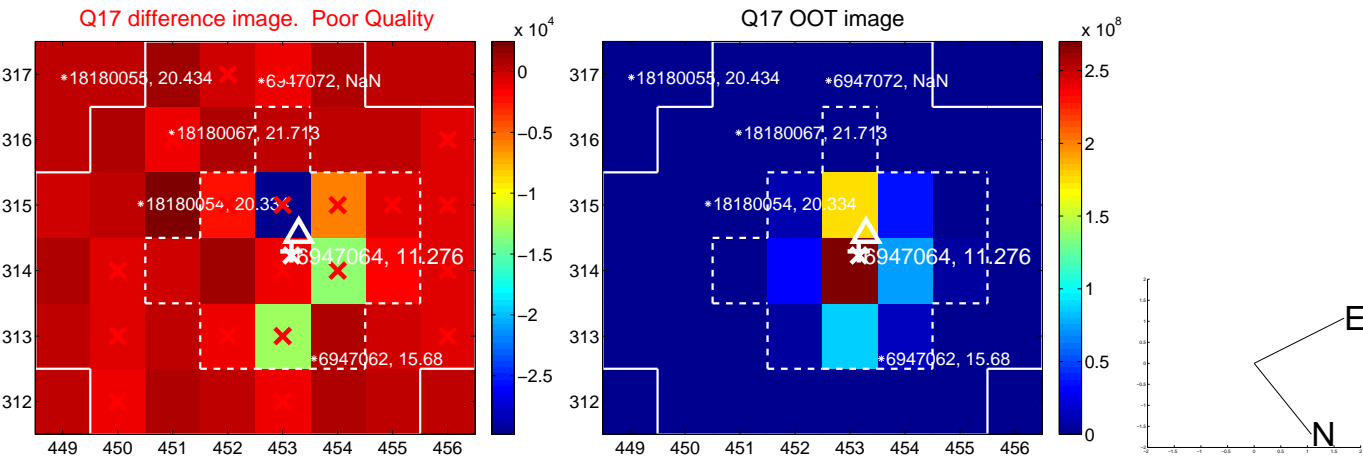
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

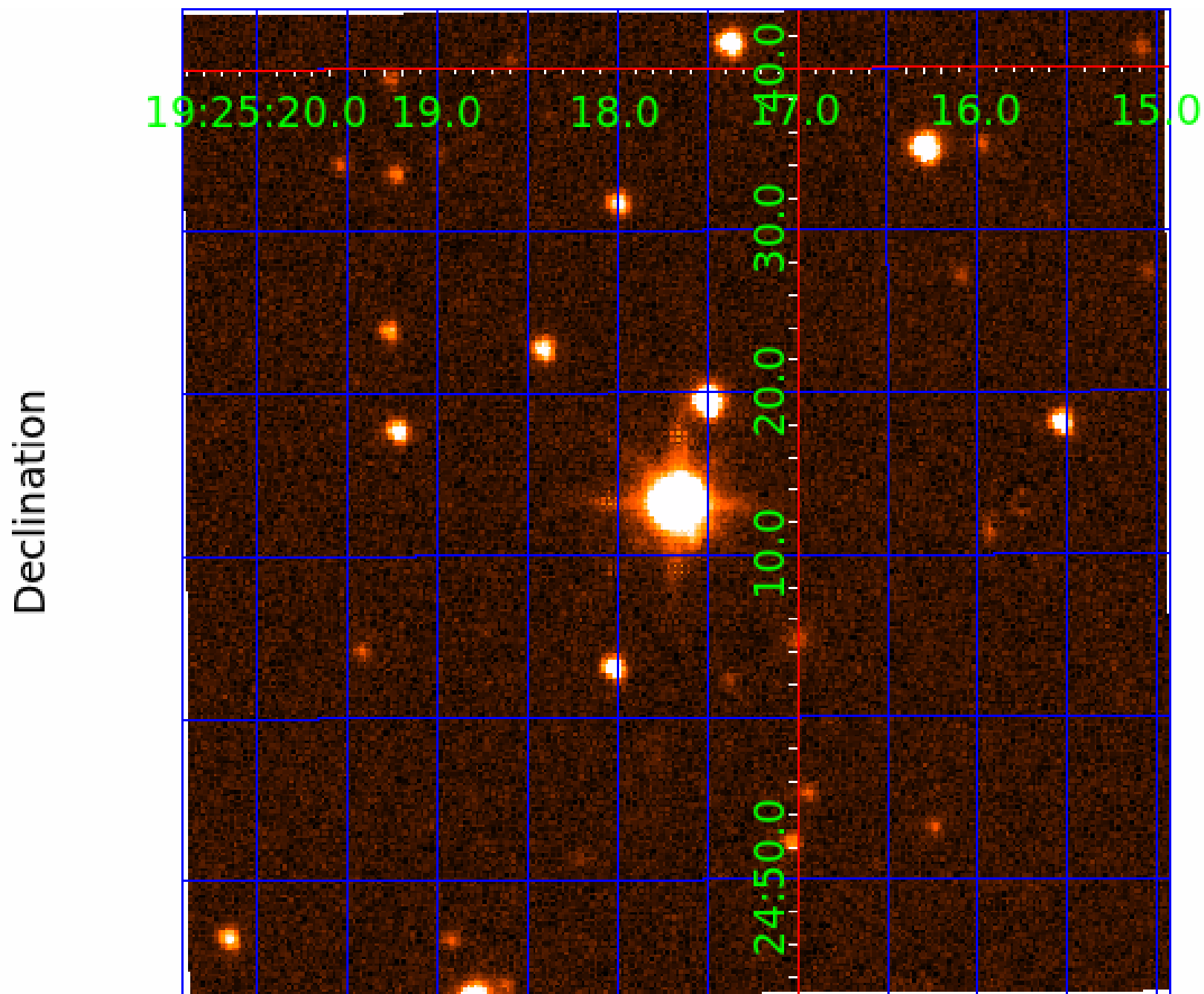


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 006947064

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})
006947064-01	OBS	No	441.434847	168.827594	201.7	17.595	22.8	13.7	2.66	8392	4.29	14.71
006947064-02	OBS	No	2.983910	132.698816	0.7	0.838	9.5	0.2	2.66	8392	0.24	11507.95
006947064-03	OBS	No	1.989089	133.064284	7.6	13.474	8.8	10.4	2.66	8392	0.77	19762.42
006947064-04	OBS	No	69.781101	186.843310	166.7	8.086	26.3	13.3	2.66	8392	3.82	172.08
006947064-05	OBS	No	82.263943	138.604381	170.9	6.687	18.1	12.8	2.66	8392	3.77	138.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006947064-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006947064-02	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—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
006947064-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

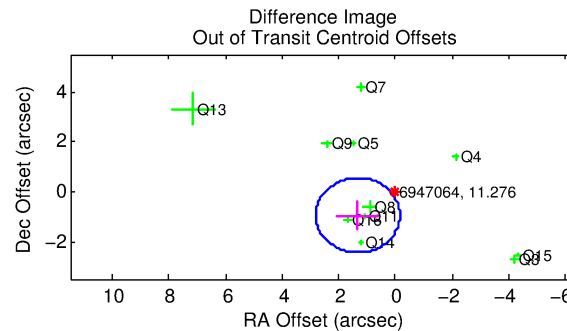
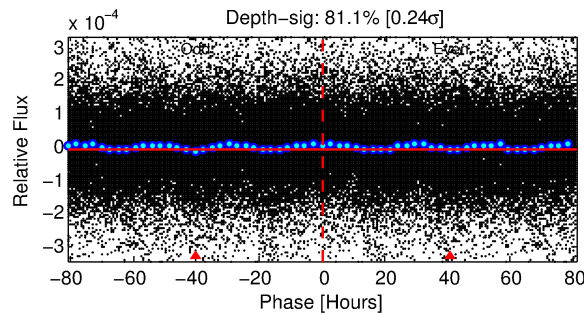
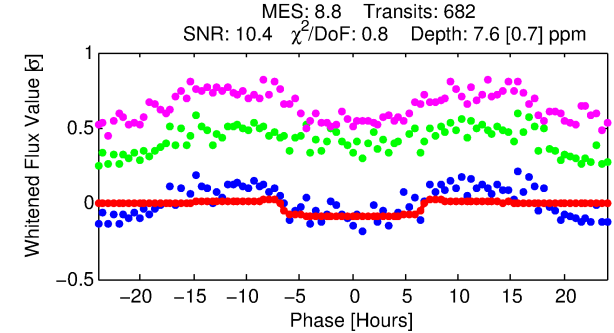
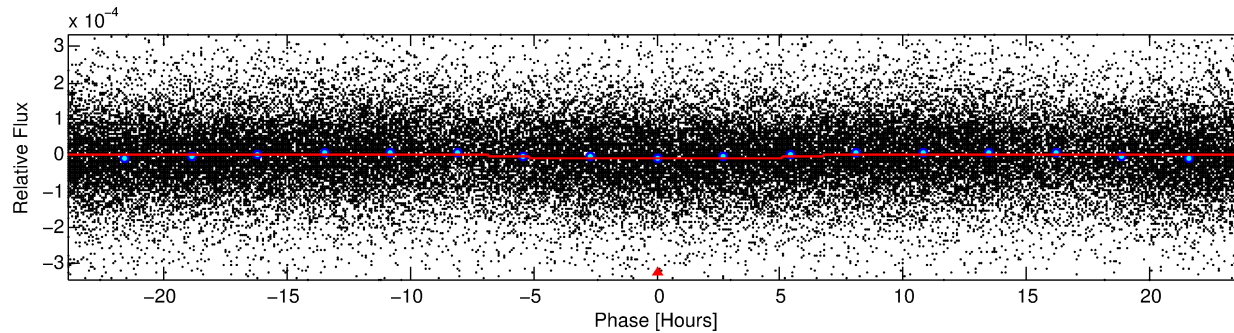
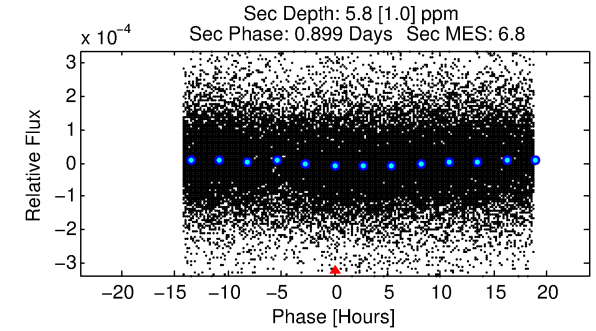
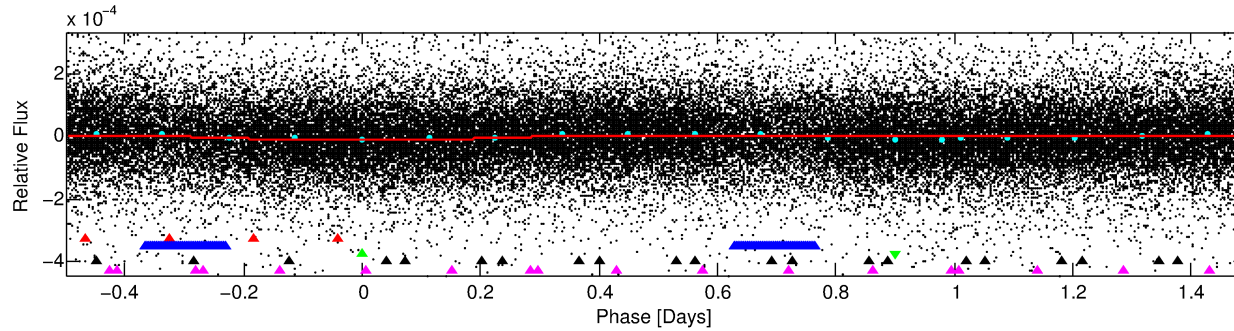
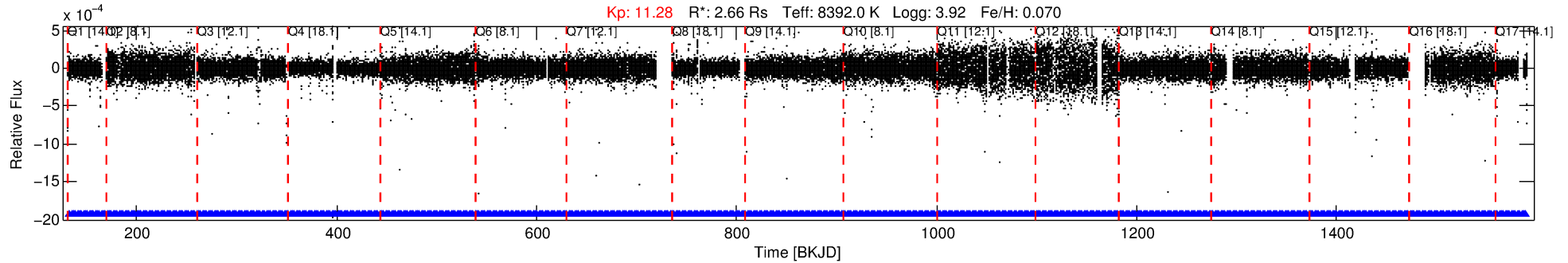
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006947064-03

No Significant Match Found

DV One-Page Summary

KIC: 6947064 Candidate: 3 of 5 Period: 1.989 d



DV Fit Results:

Period = 1.98909 [0.00004] d
Epoch = 133.0643 [0.0110] BKJD
Rp/R* = 0.0026 [0.0012]
a/R* = 1.20 [0.97]
b = 0.58 [3.01]
Seff = 19762.42 [9360.52]
Teff = 3023 [358] K
Rp = 0.77 [0.44] Re
a = 0.0399 [0.0122] AU
Ag = 8.68 [8.65] [0.89σ]
Teffp = 8023 [1825] K [2.69σ]

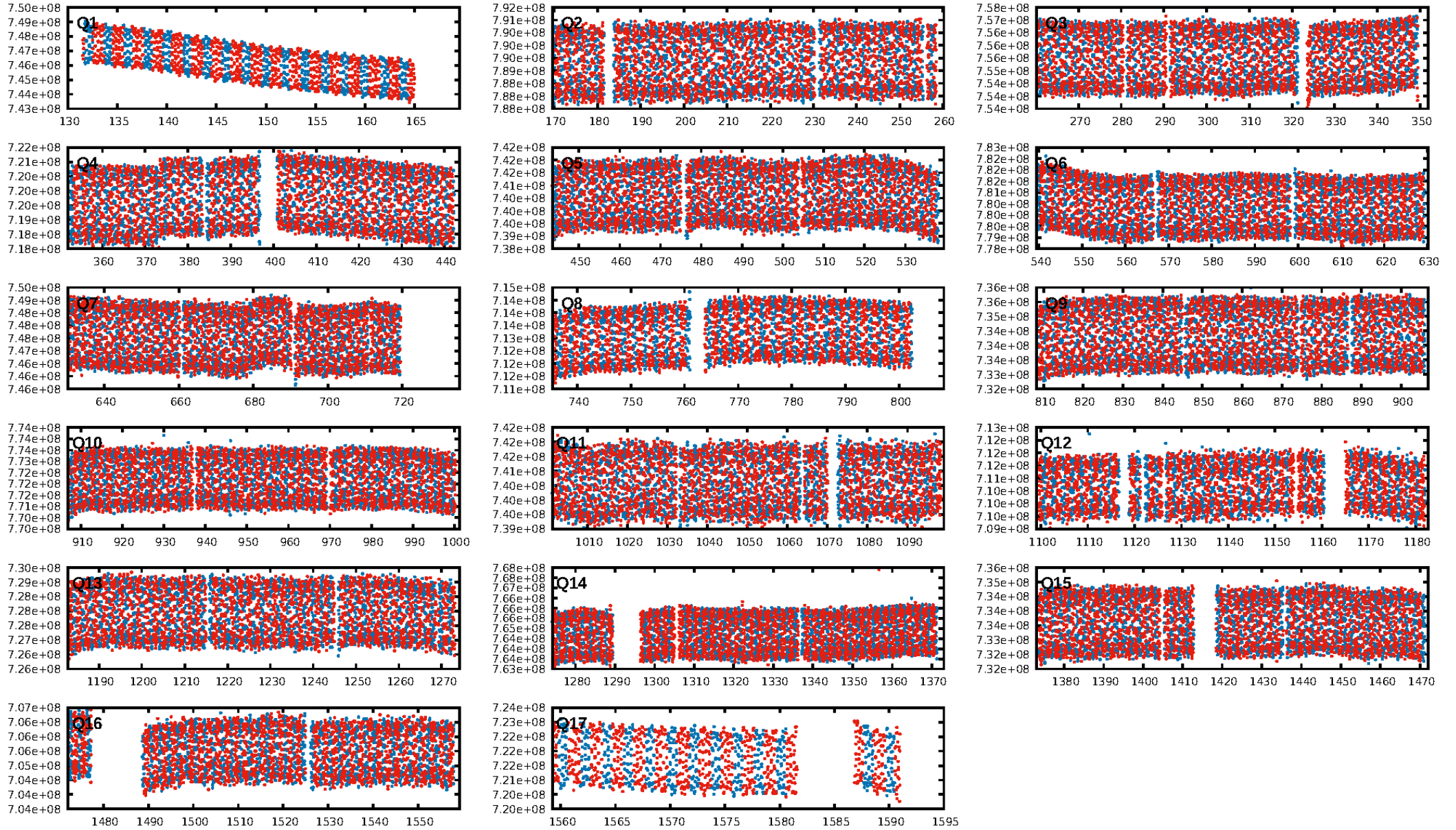
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 92.3% [1.77σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.45e-08
RollingBand-fgt: 1.00 [650/650]
GhostDiagnostic-chr: 1.15
Centroid-sig: 0.0%
Centroid-so: 3.450 arcsec [2.90σ]
OotOffset-rm: 1.641 arcsec [3.30σ]
KicOffset-rm: 1.713 arcsec [3.10σ]
OotOffset-st: 1/4/3/3 [11]
KicOffset-st: 1/4/3/3 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 1.00 [17/17]

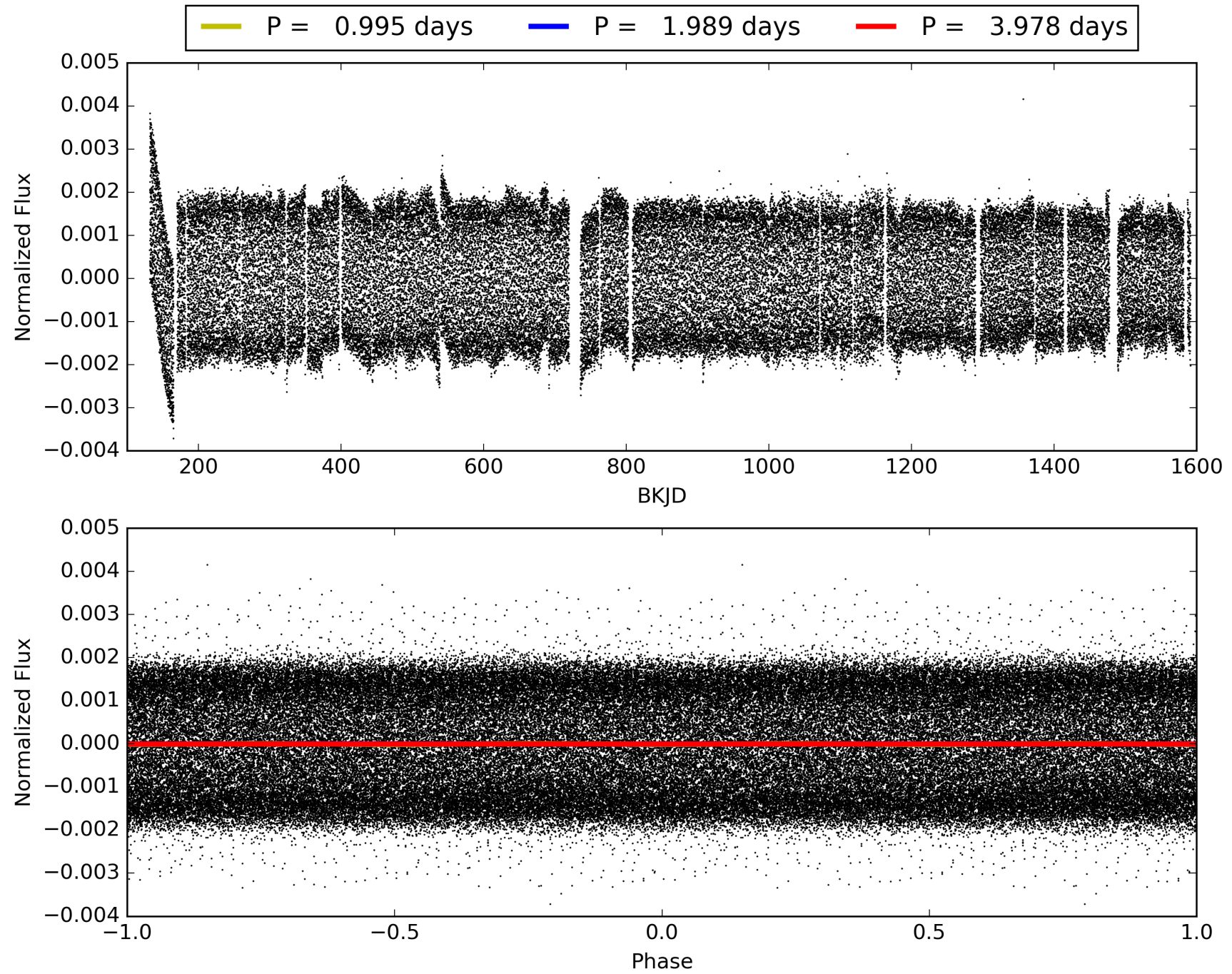
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:08:48 Z

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

TCE 006947064-03, PDC Light Curves

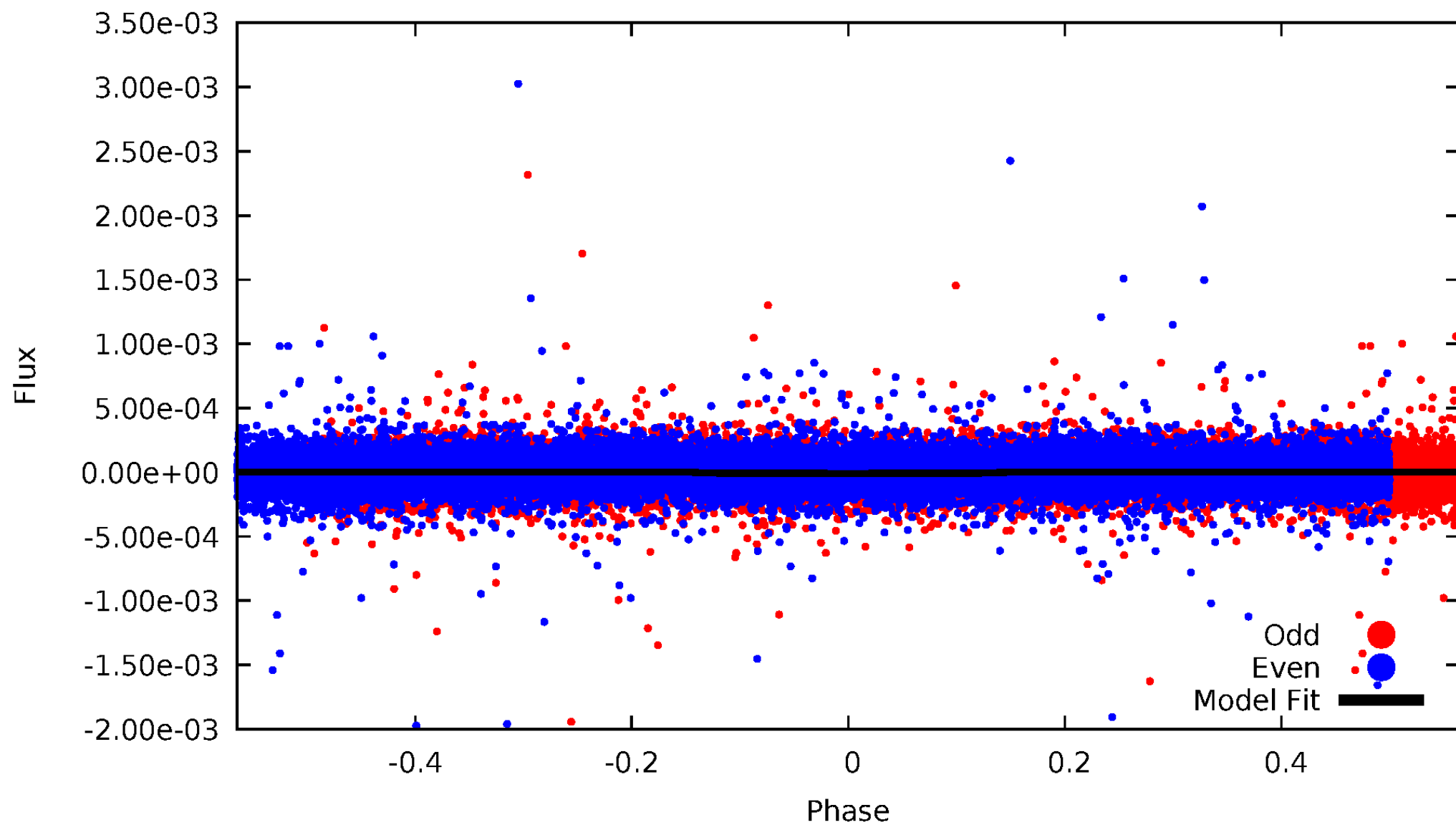


TCE 006947064-03



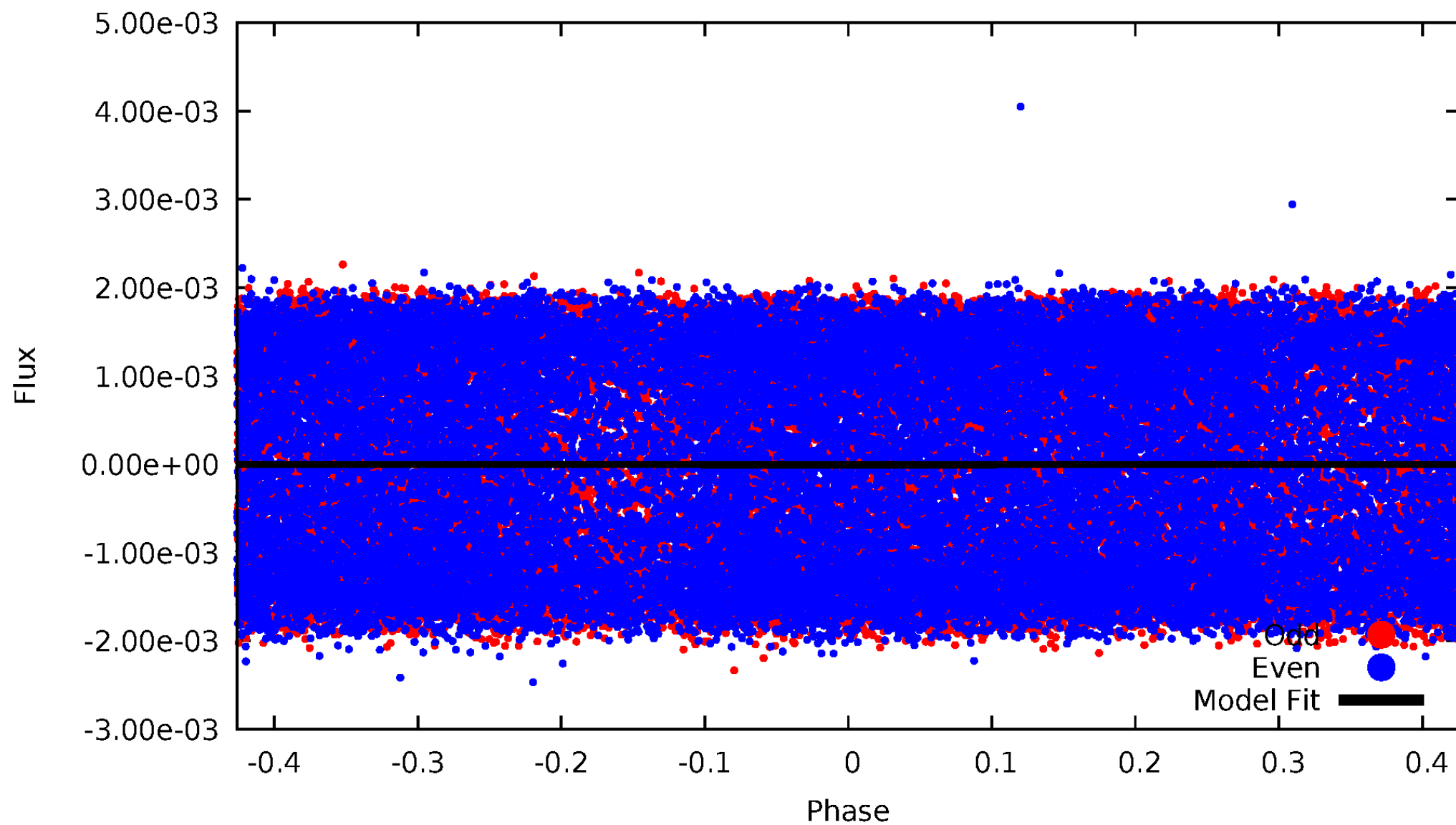
DV Odd/Even

TCE 006947064-03

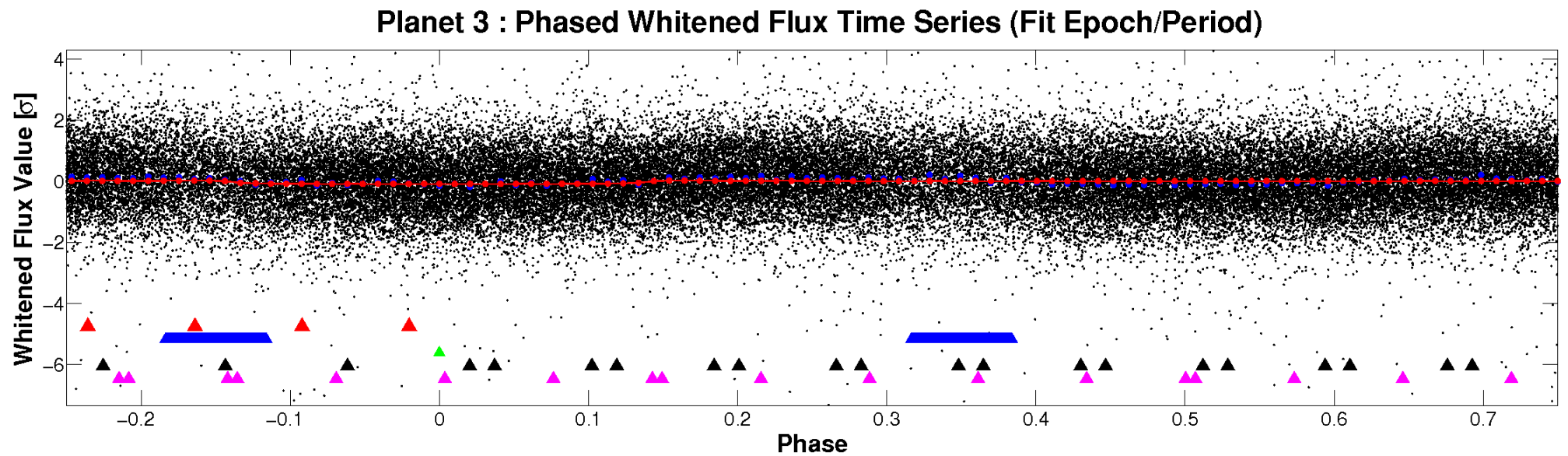
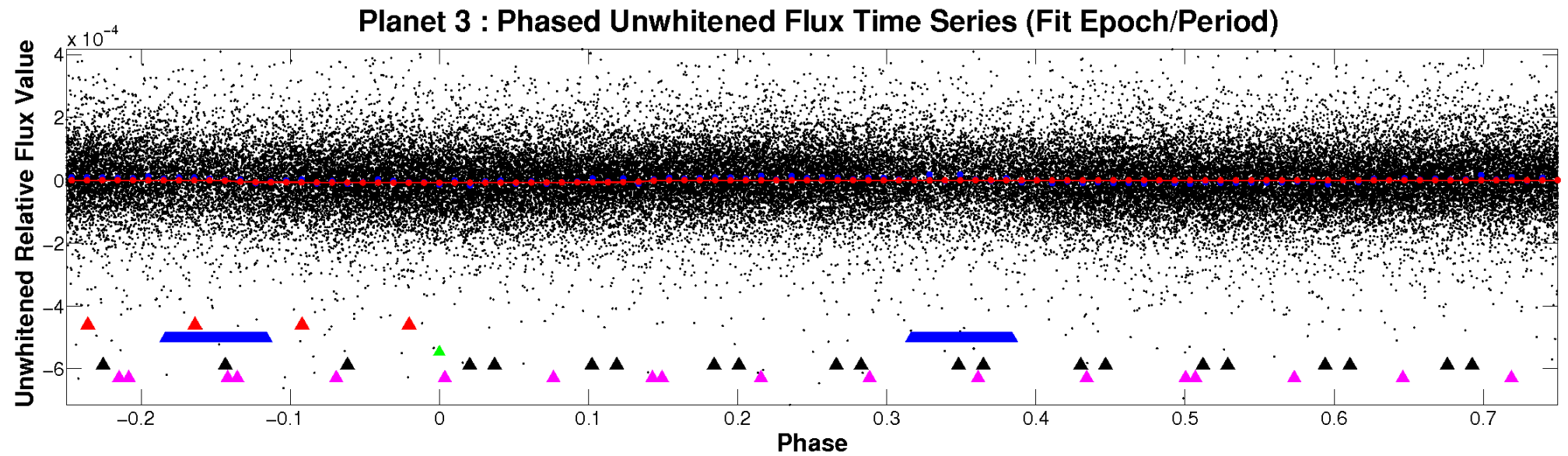


ALT Odd/Even

TCE 006947064-03

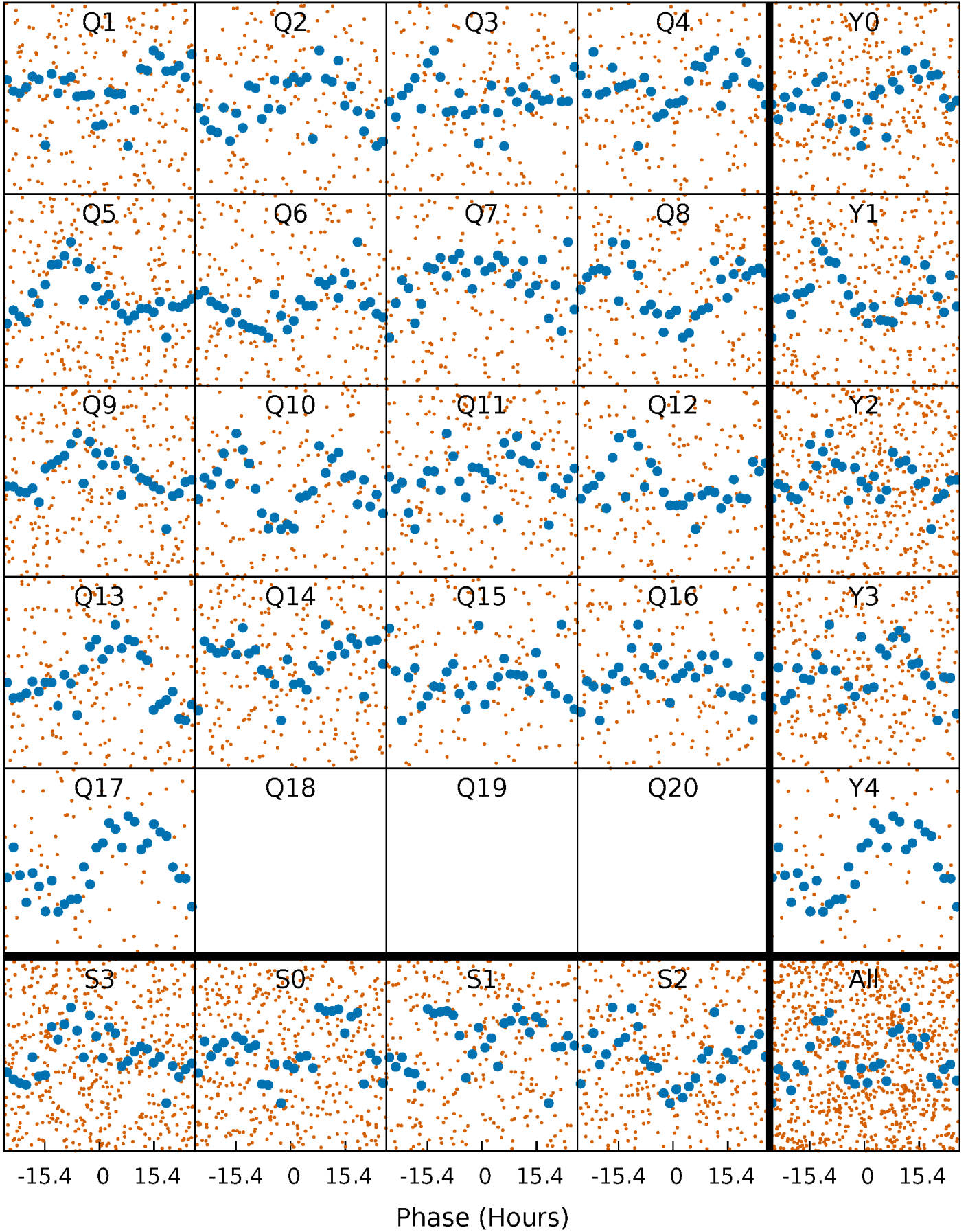


Non-Whitened Vs. Whitened Light Curve



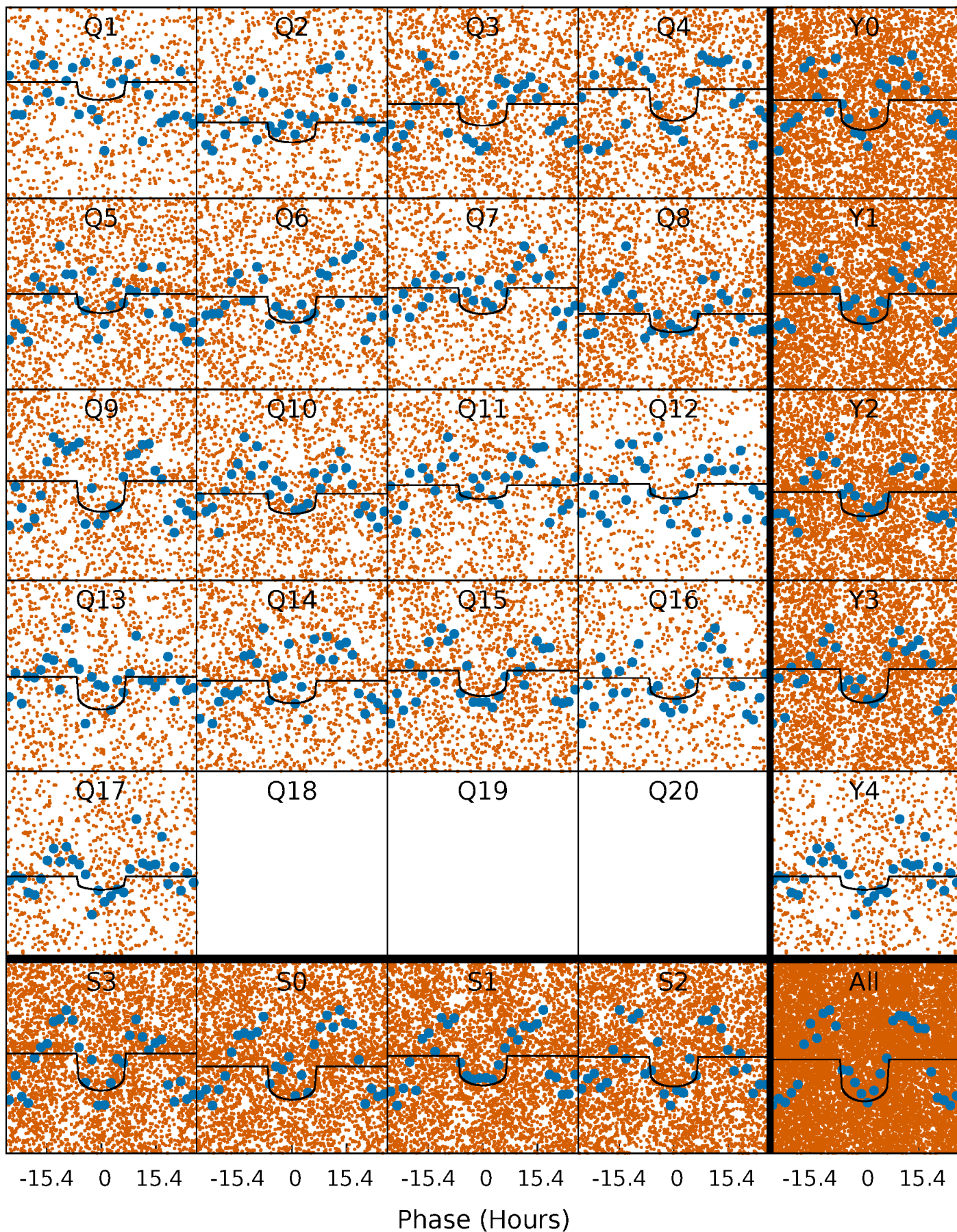
PDC Quarter-Phased Transit Curves

TCE 006947064-03 $P = 1.989089$ Days $T_0 = 133.064284$ (BKJD)



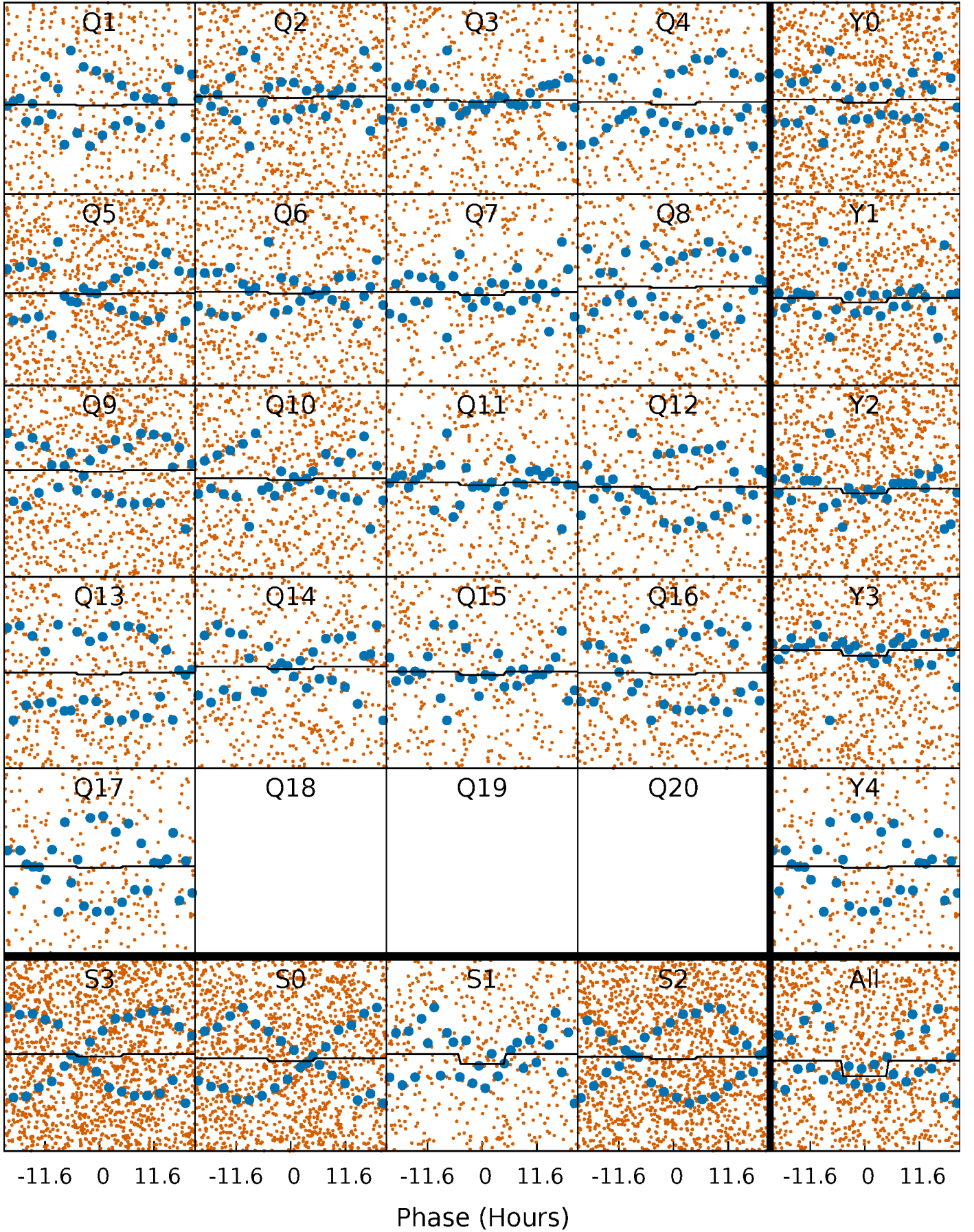
DV Quarter-Phased Transit Curves

TCE 006947064-03 P= 1.989089 Days $T_0=133.064284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

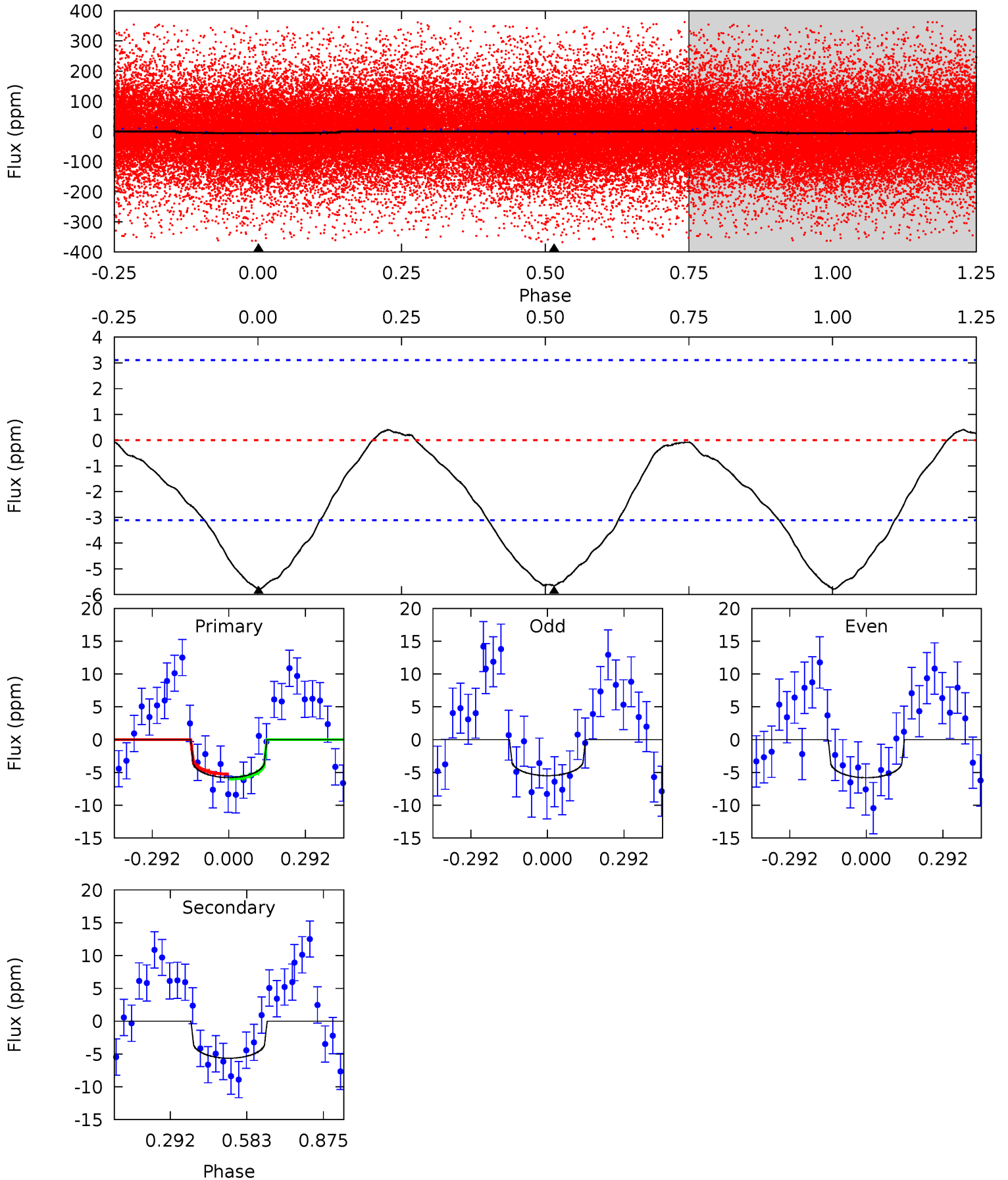
TCE 006947064-03 P= 1.989253 Days $T_0=133.022020$ (BKJD)



DV Model-Shift Uniqueness Test

006947064-03, P = 1.989089 Days, E = 131.075195 Days

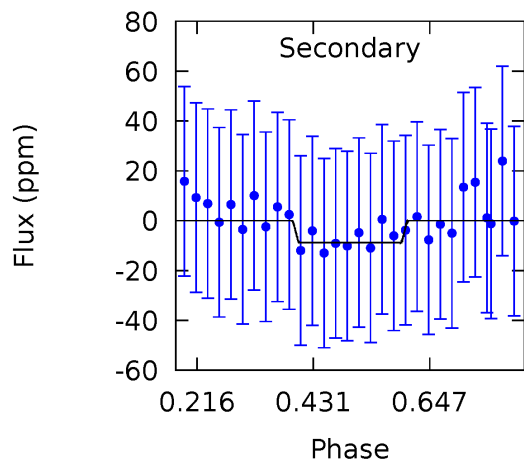
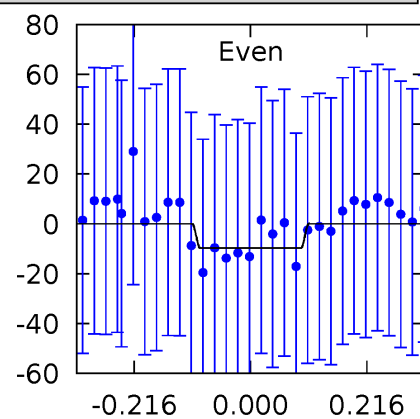
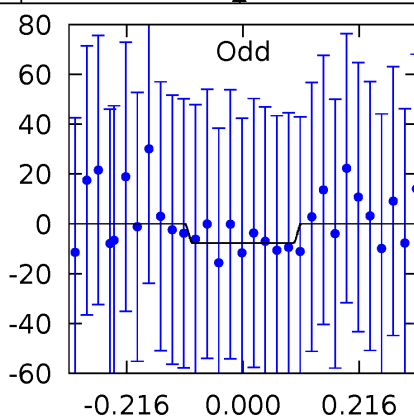
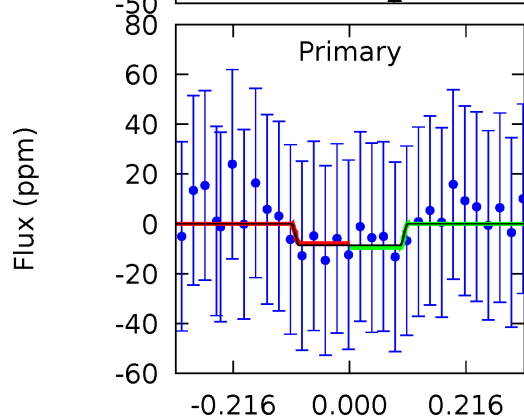
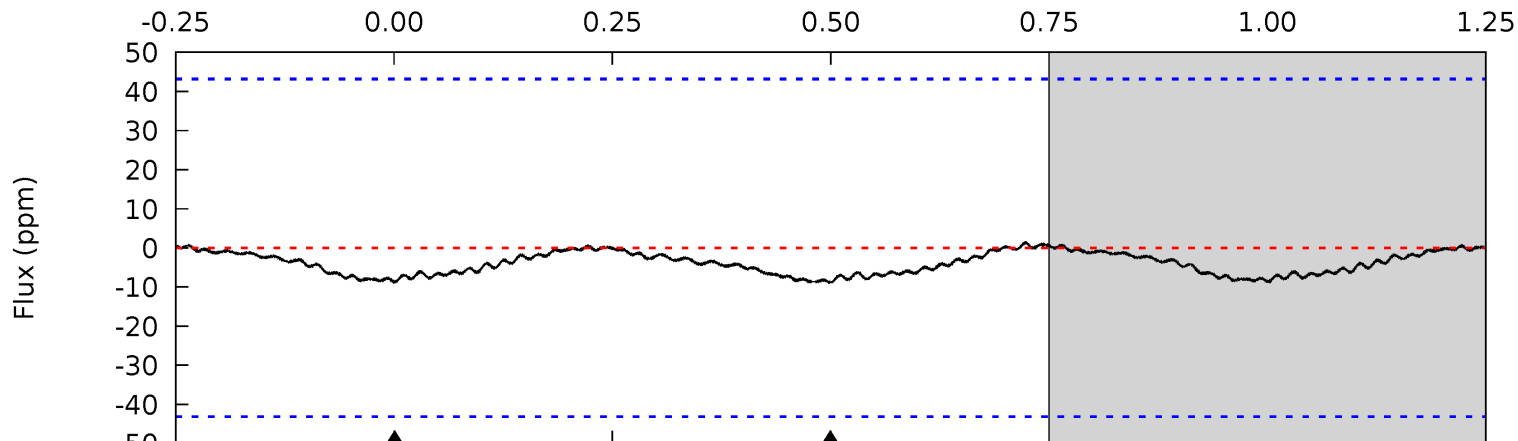
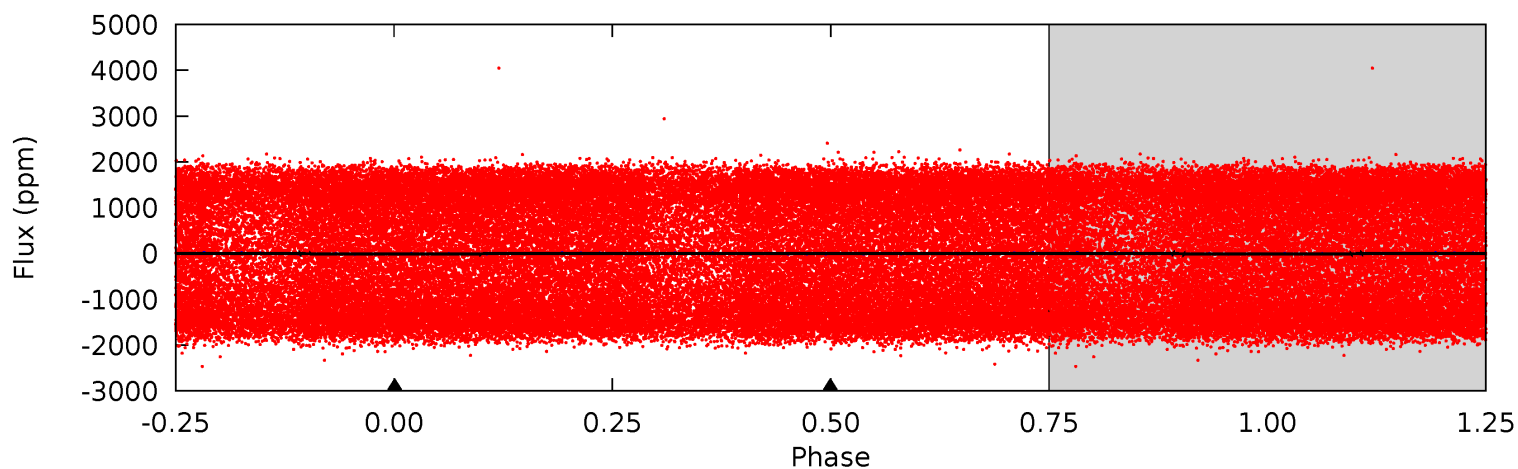
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	7.88	0	0	4.33	1.05	0.38	8.06	8.06	7.88	7.88	0.22	0.84	0.06	0.53



Alt Model-Shift Uniqueness Test

006947064-03, P = 1.989253 Days, E = 131.032767 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.88	0.90	0	0	4.40	1.24	0.07	0.88	0.88	0.90	0.90	0.10	1.76	0.13	0.09



Stellar Parameters For KIC 006947064

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8392^{+231}_{-363}	$3.919^{+0.240}_{-0.140}$	$0.070^{+0.250}_{-0.500}$	$2.664^{+0.726}_{-0.968}$	$2.149^{+0.306}_{-0.524}$	$0.160^{+0.277}_{-0.067}$
	+3%/-4%	+6%/-4%	+357%/-714%	+27%/-36%	+14%/-24%	+173%/-42%
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 006947064-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$0.73^{+0.36}_{-0.30}$	4170^{+299}_{-345}	7723^{+3397}_{-1521}	$9.126^{+16.276}_{-5.232}$
Alt.	-9 ± 10	$0.81^{+0.32}_{-0.34}$	4175^{+320}_{-374}	8104^{+5082}_{-13188}	10^{+28}_{-12}

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

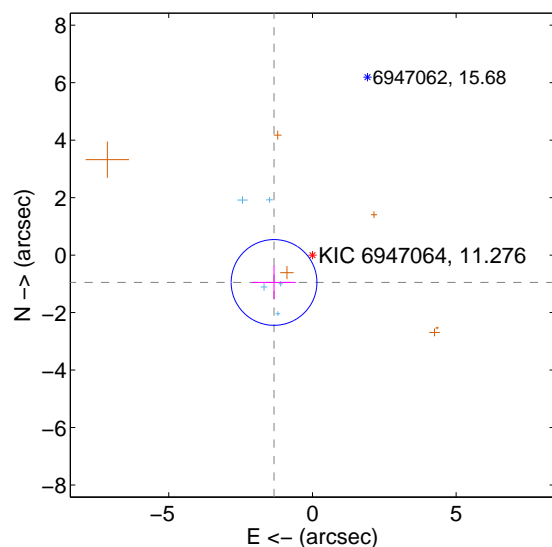
Supplemental centroid analysis for 006947064-03. **Kepler magnitude: 11.28.** Transit SNR 10.39

There are 5 quarters with good PRF difference image offsets

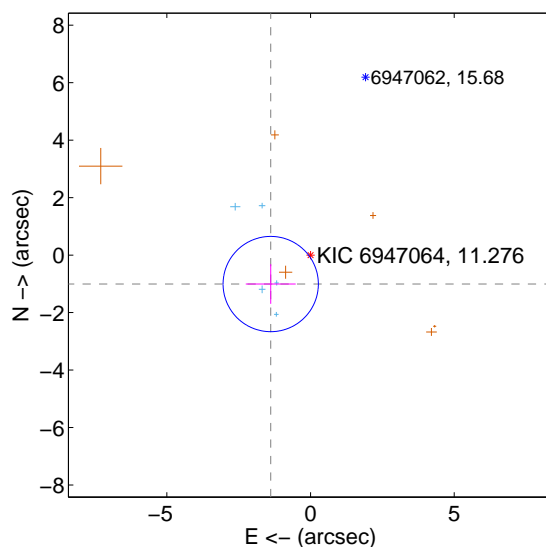
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.641 ± 0.497	3.30	1.336 ± 0.755	-0.952 ± 0.585
PRF-fit source offset from KIC position	1.713 ± 0.553	3.10	1.385 ± 0.870	-1.007 ± 0.690
photometric centroid source offset	3.45 ± 1.19	2.90	-3.41 ± 1.19	0.54 ± 1.09

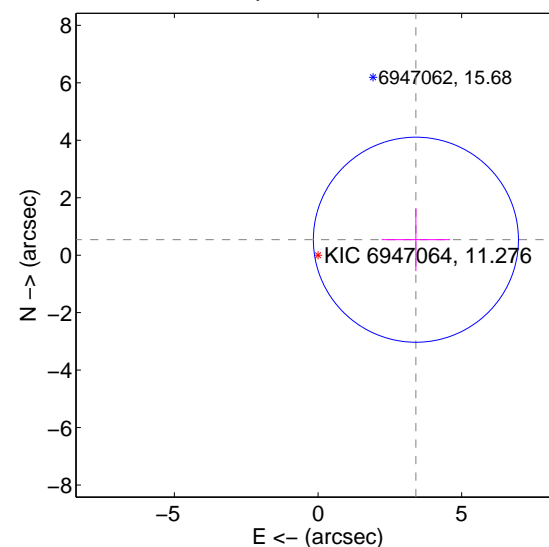
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

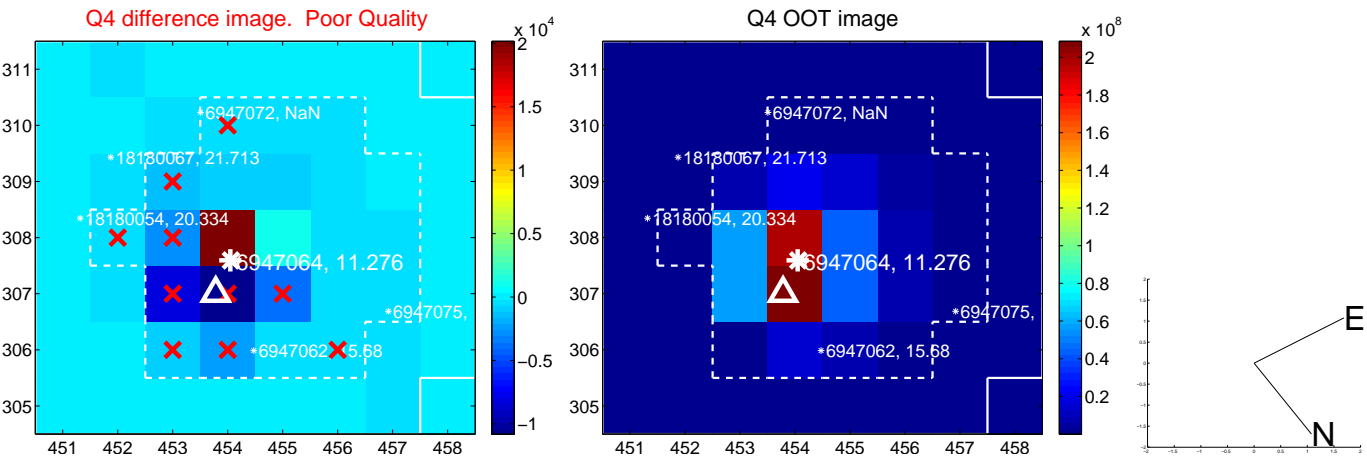
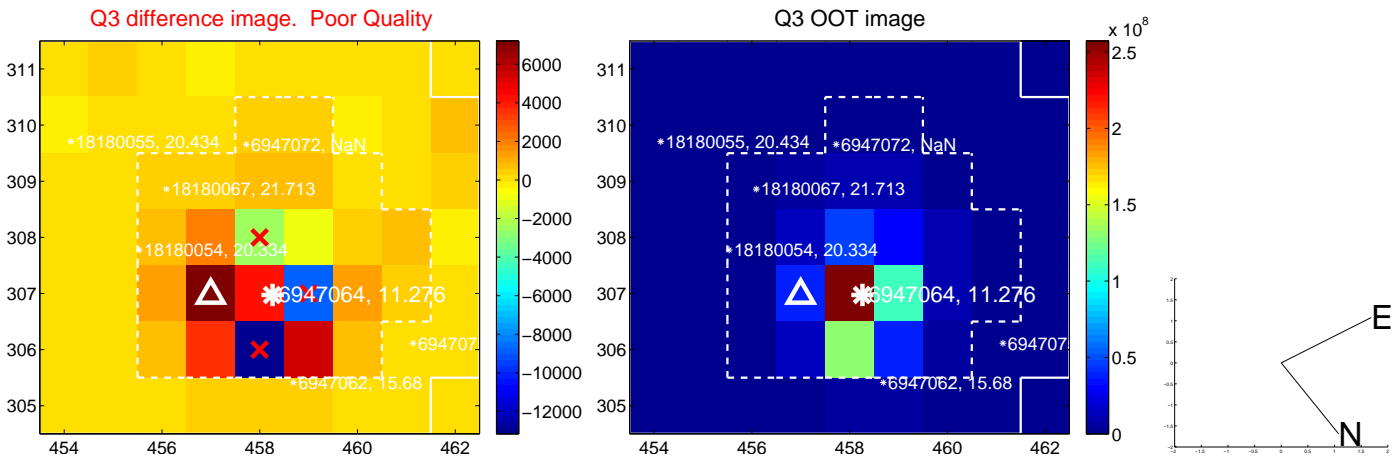
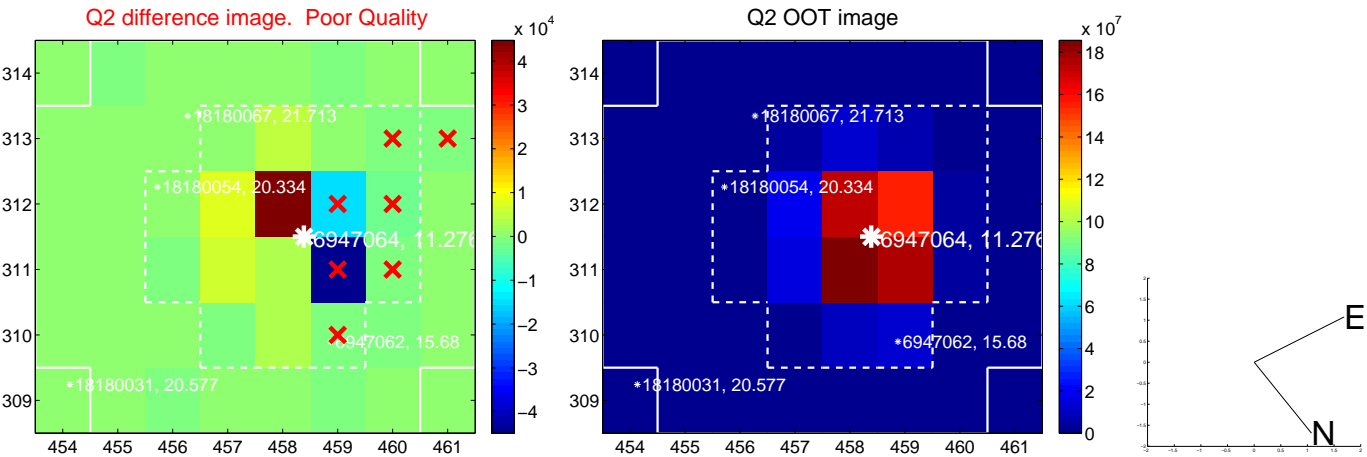
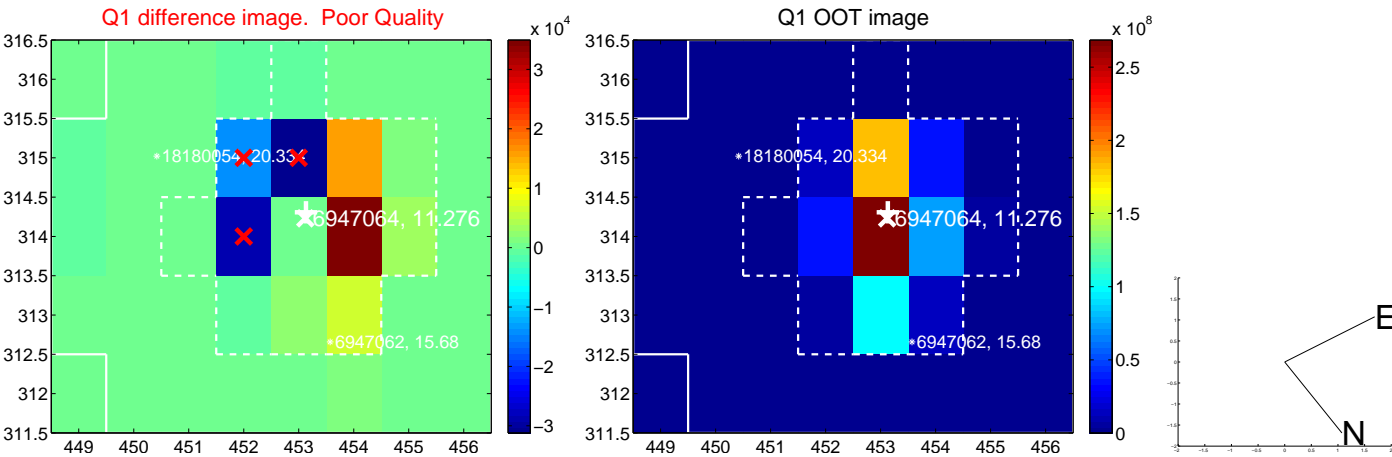


offset from photometric centroids

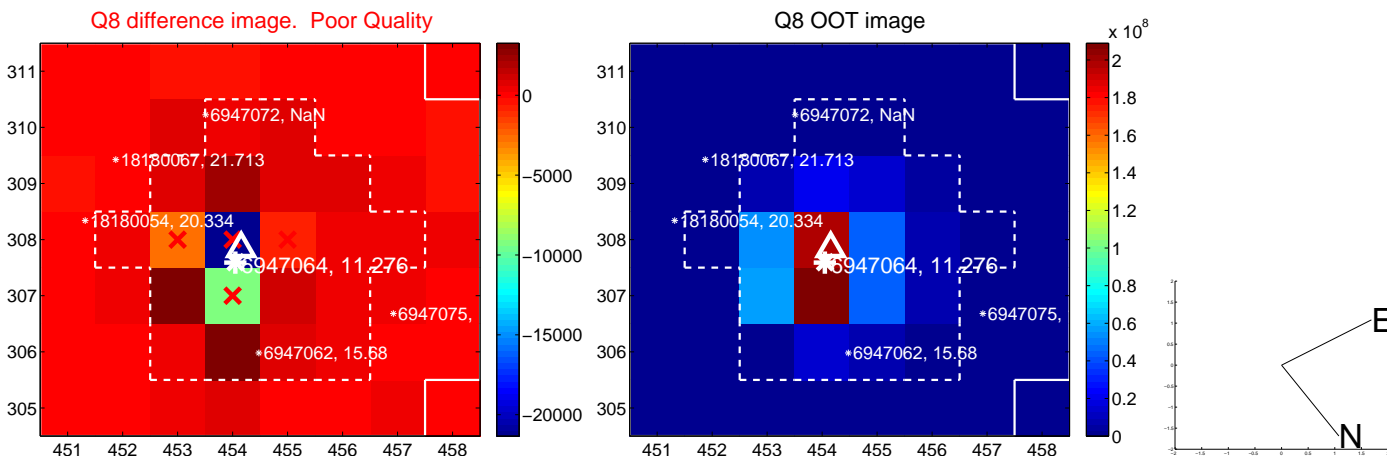
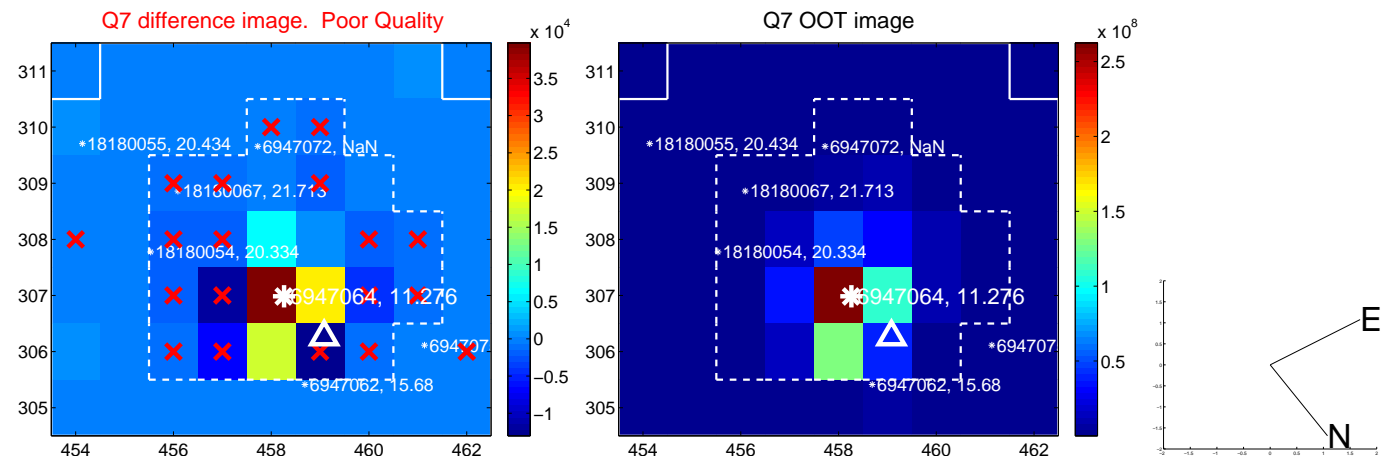
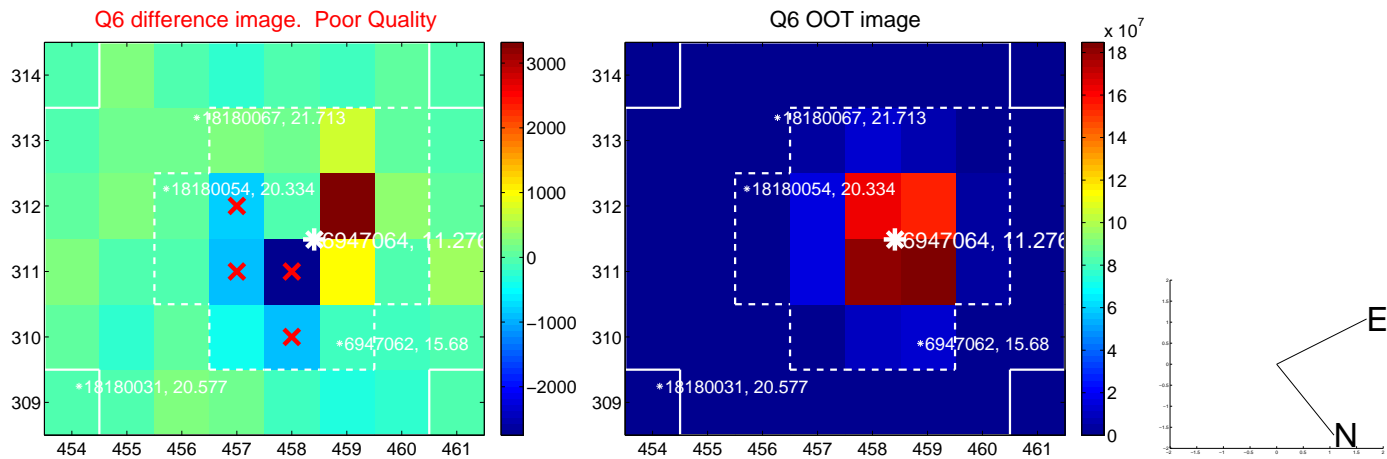
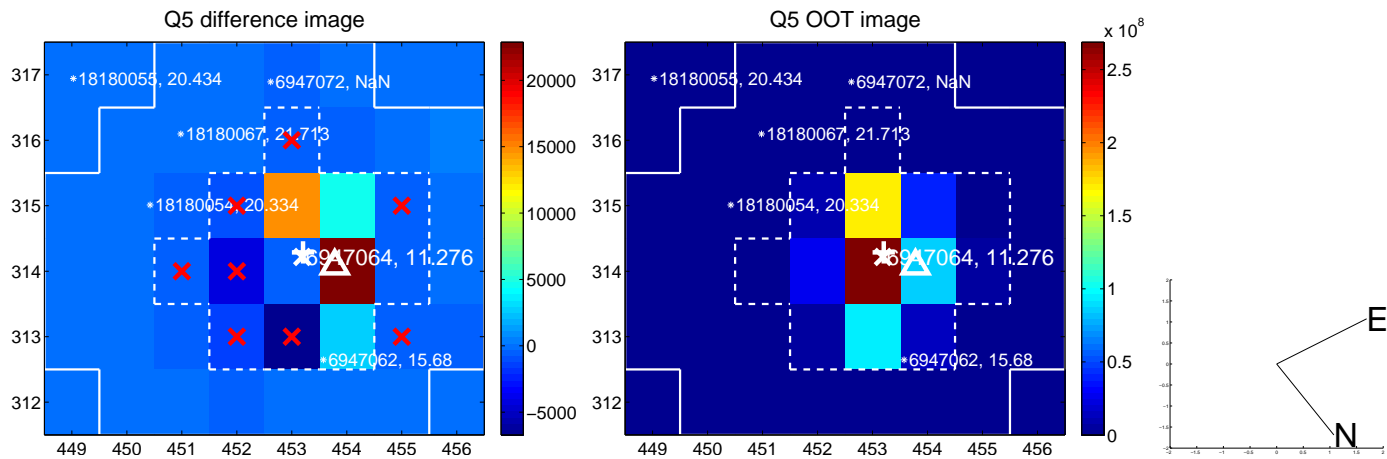


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

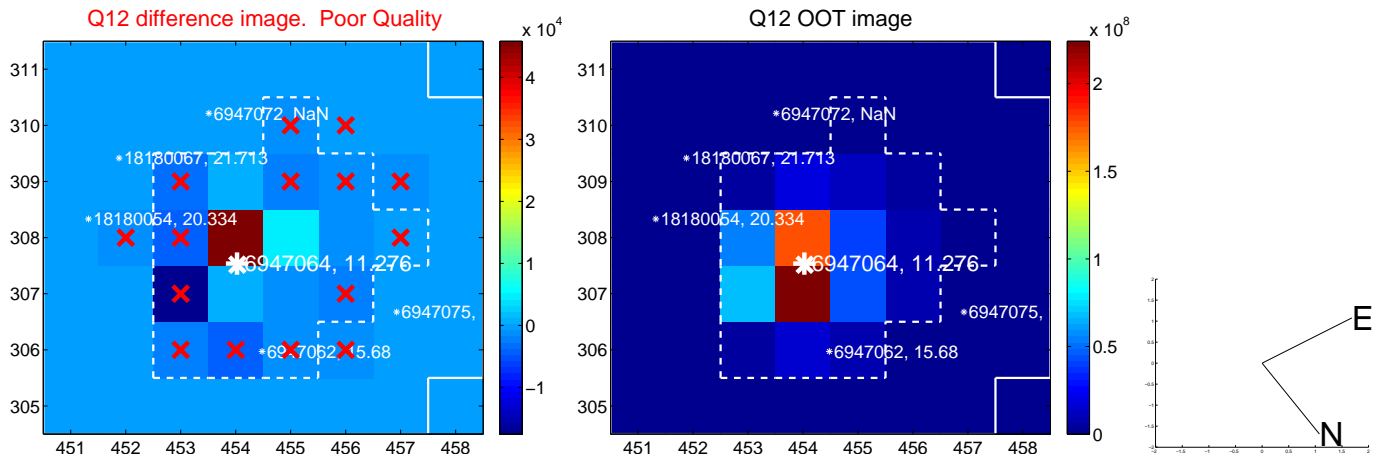
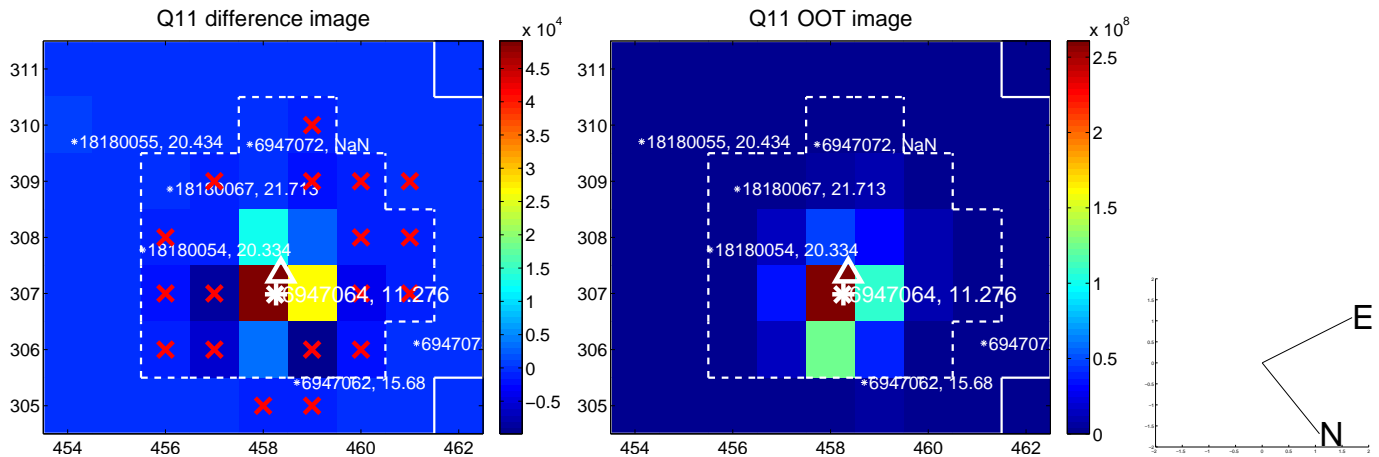
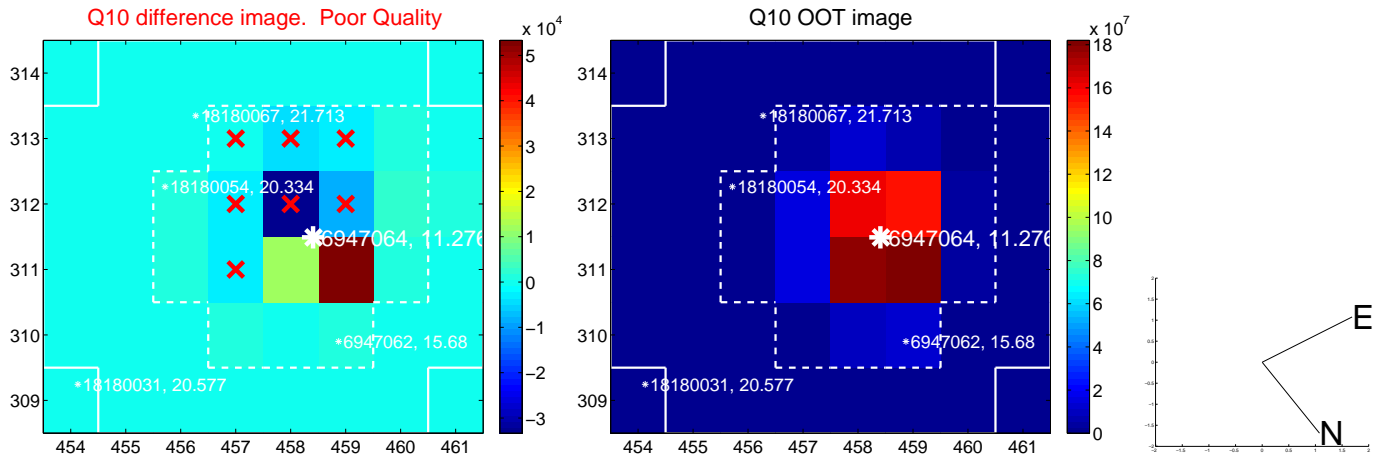
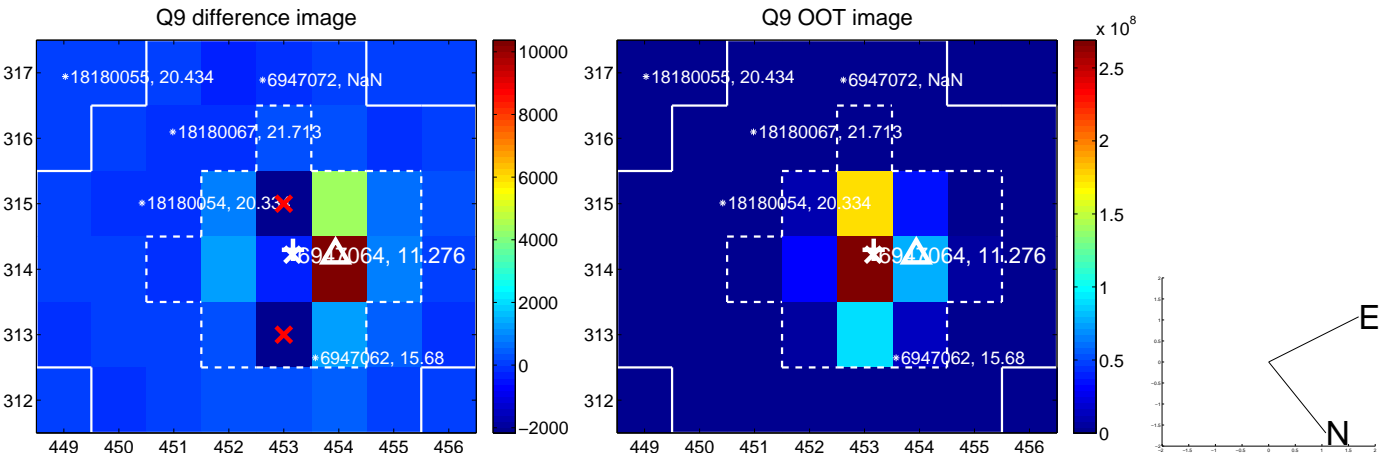
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



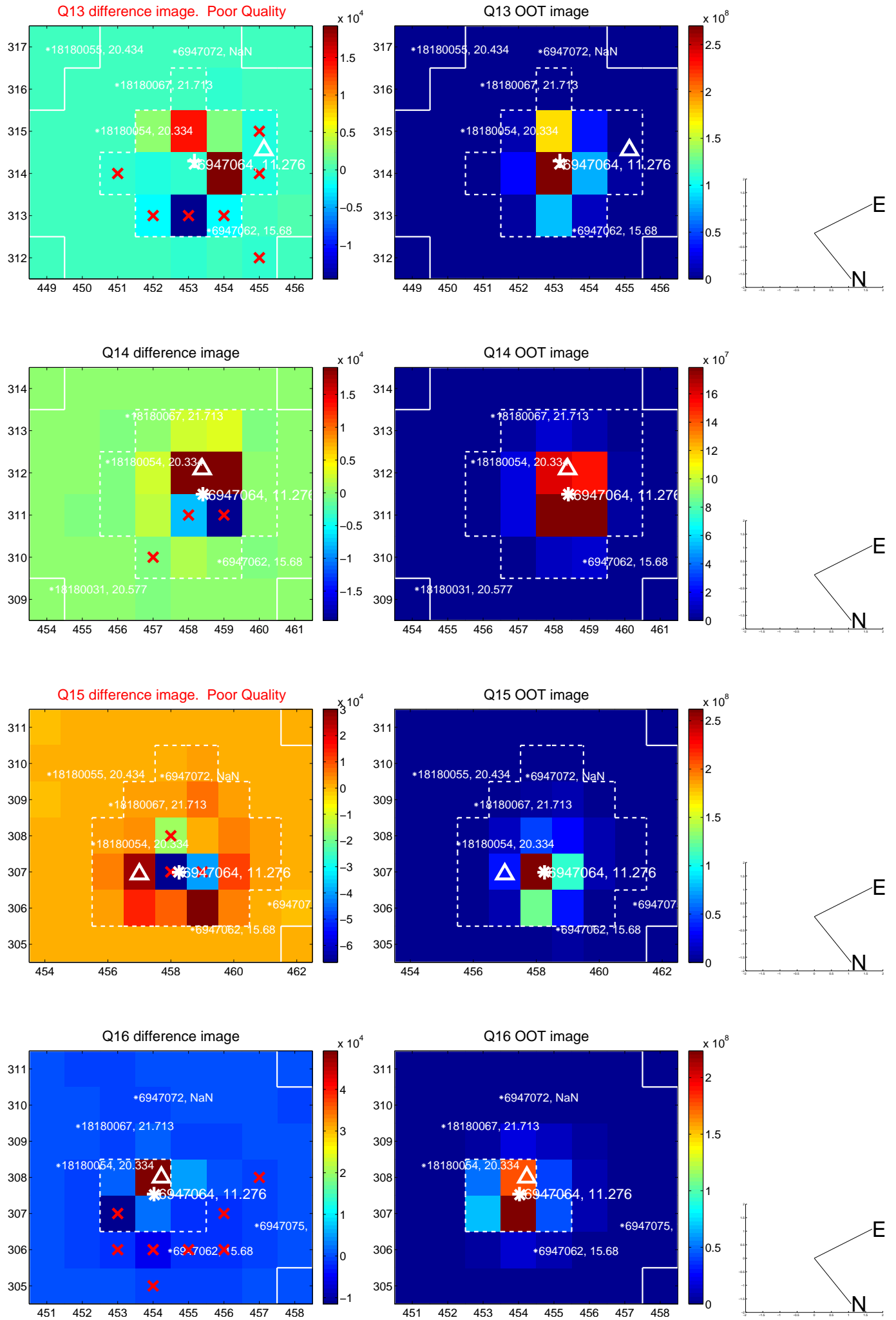
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



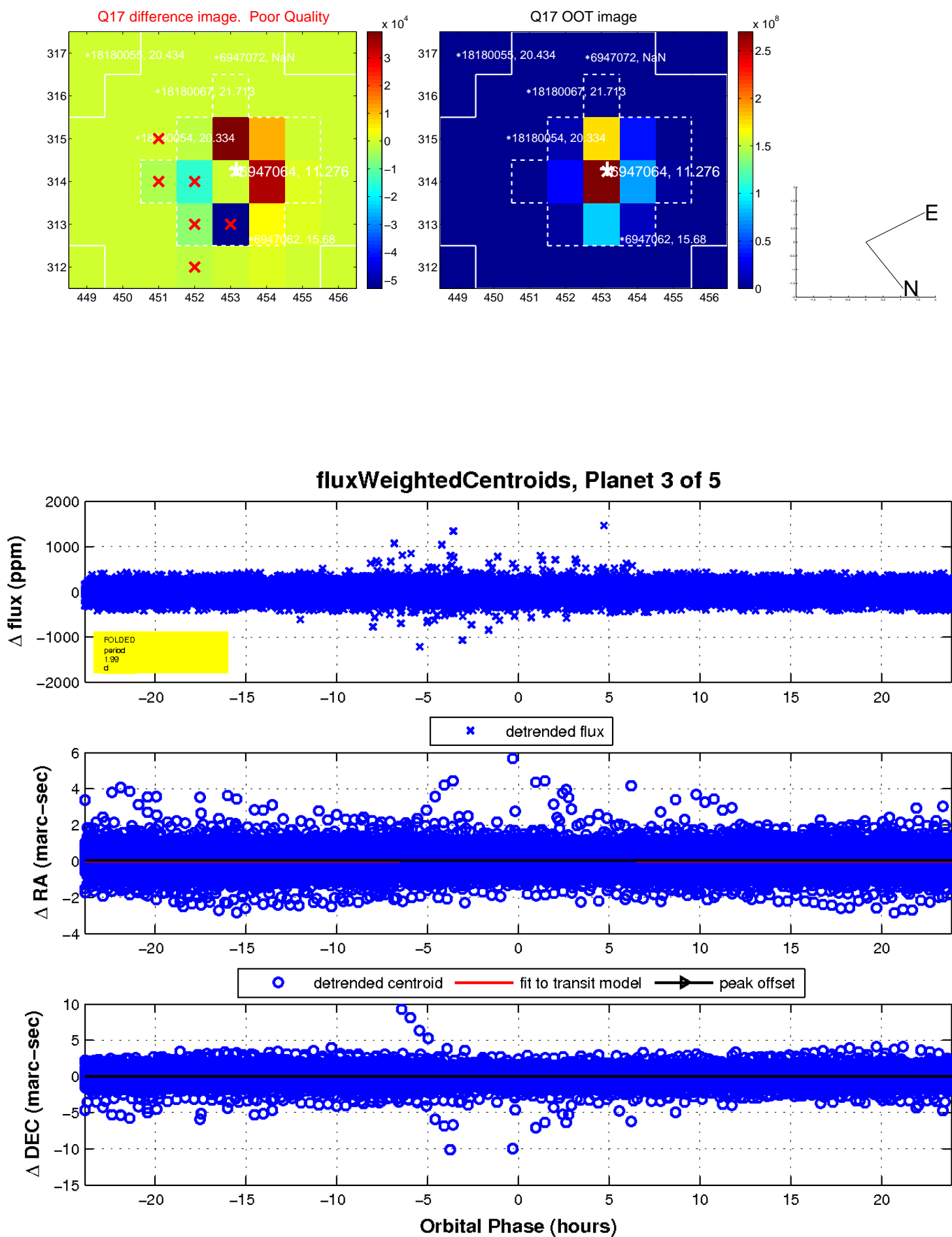
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



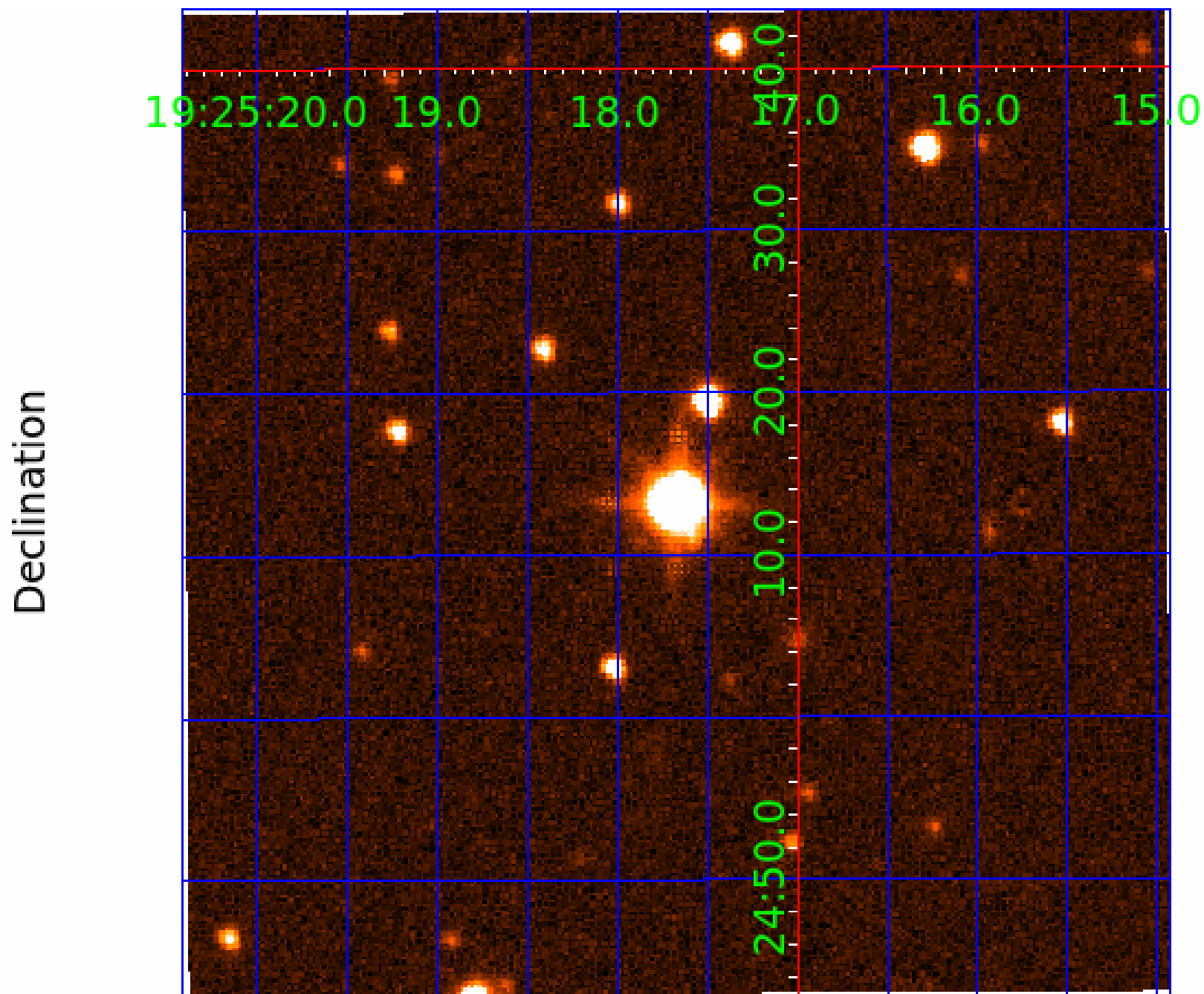
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006947064

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})
006947064-01	OBS	No	441.434847	168.827594	201.7	17.595	22.8	13.7	2.66	8392	4.29	14.71
006947064-02	OBS	No	2.983910	132.698816	0.7	0.838	9.5	0.2	2.66	8392	0.24	11507.95
006947064-03	OBS	No	1.989089	133.064284	7.6	13.474	8.8	10.4	2.66	8392	0.77	19762.42
006947064-04	OBS	No	69.781101	186.843310	166.7	8.086	26.3	13.3	2.66	8392	3.82	172.08
006947064-05	OBS	No	82.263943	138.604381	170.9	6.687	18.1	12.8	2.66	8392	3.77	138.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006947064-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006947064-02	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—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
006947064-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

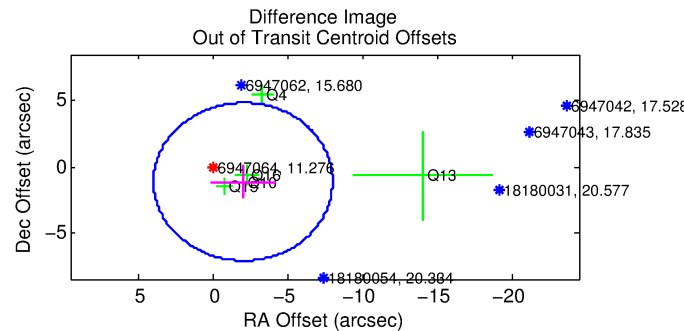
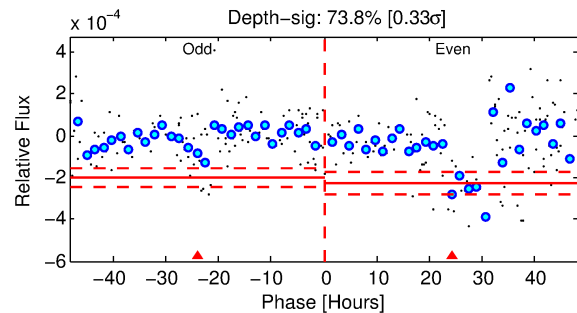
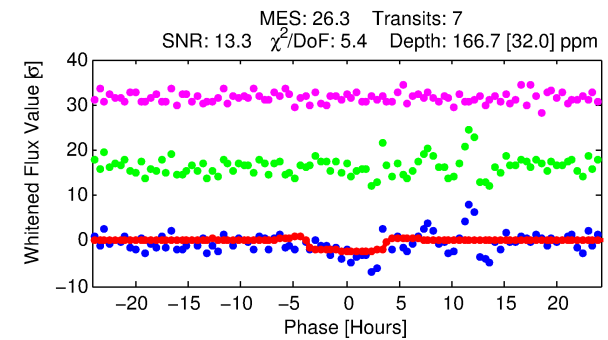
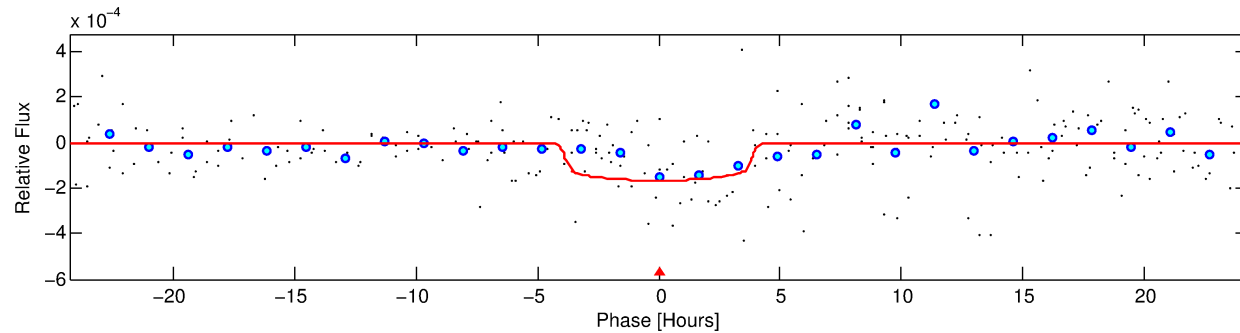
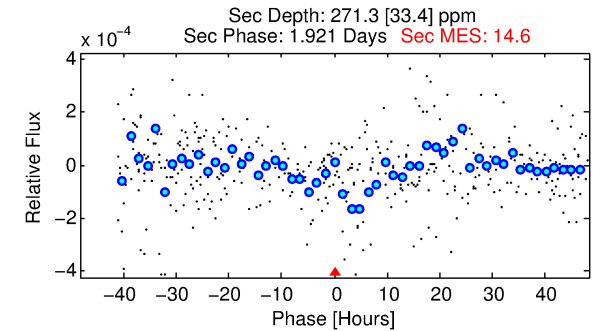
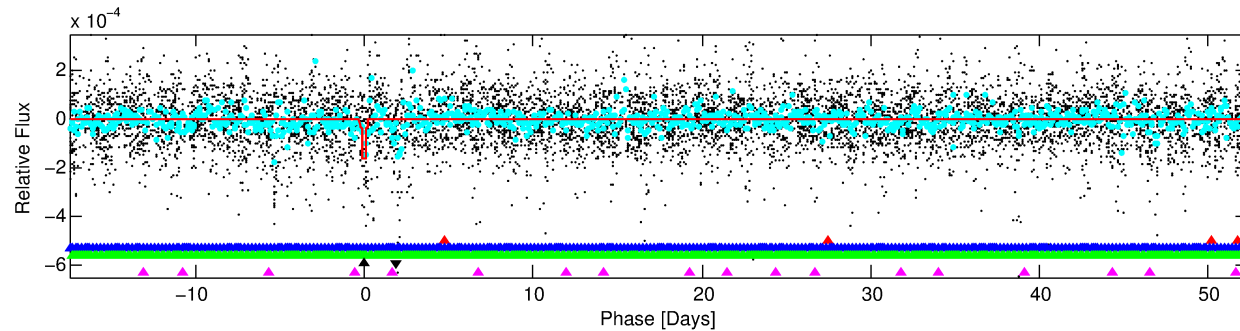
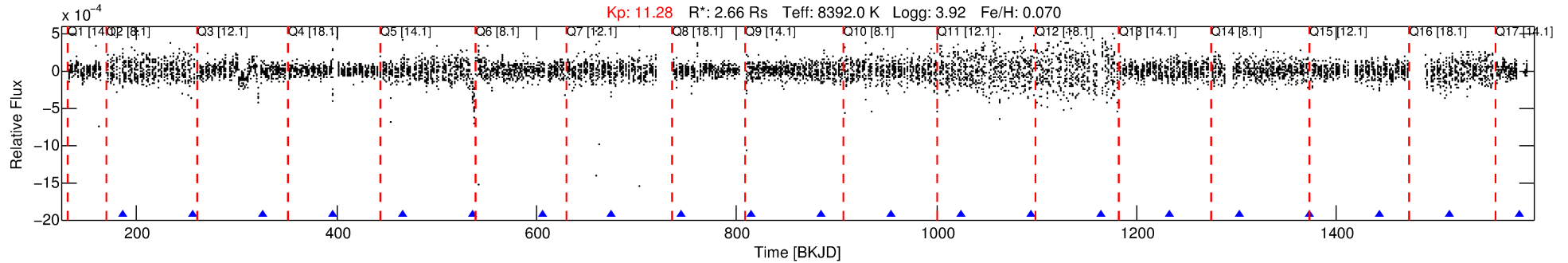
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006947064-04

No Significant Match Found

DV One-Page Summary

KIC: 6947064 Candidate: 4 of 5 Period: 69.781 d



DV Fit Results:

Period = 69.78110 [0.00216] d
Epoch = 186.8433 [0.0192] BKJD
Rp/R* = 0.0131 [0.0140]
a/R* = 39.56 [259.76]
b = 0.82 [2.72]
Seff = 172.08 [81.51]
Teq = 924 [109] K
Rp = 3.82 [4.30] Re
a = 0.4281 [0.1303] AU
Ag = 1875.69 [4092.00] [0.46 σ]
Teffp = 9397 [5036] K [1.68 σ]

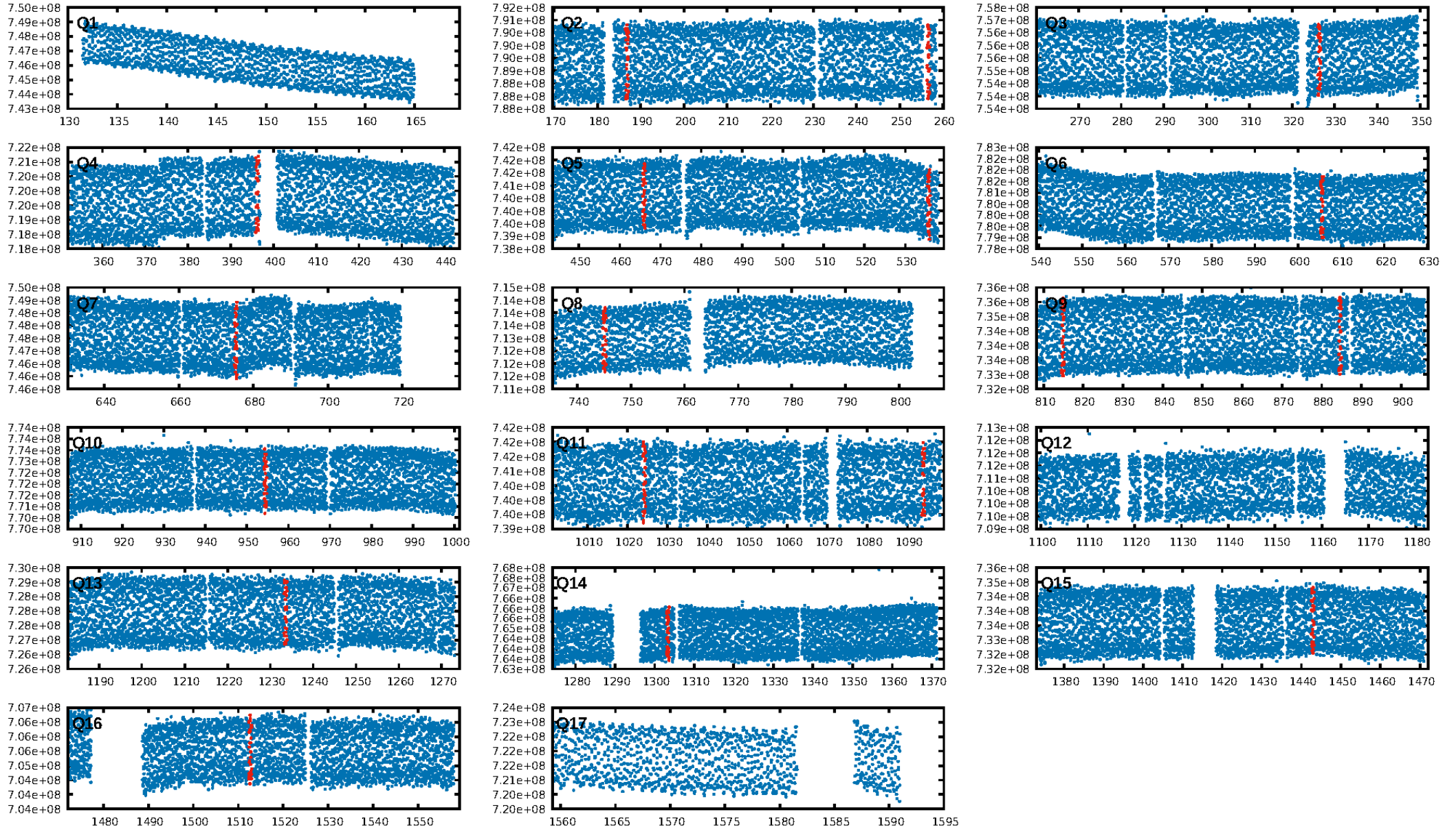
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [197.21 σ]
LongPeriod-sig: 100.0% [28.55 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 4.51e-197
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 3.417
Centroid-sig: 23.6%
Centroid-so: 0.528 arcsec [1.34 σ]
OotOffset-rm: 2.343 arcsec [1.18 σ]
KicOffset-rm: 2.373 arcsec [0.91 σ]
OotOffset-st: 1/1/2/1 [5]
KicOffset-st: 1/1/2/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.07 [1/14]

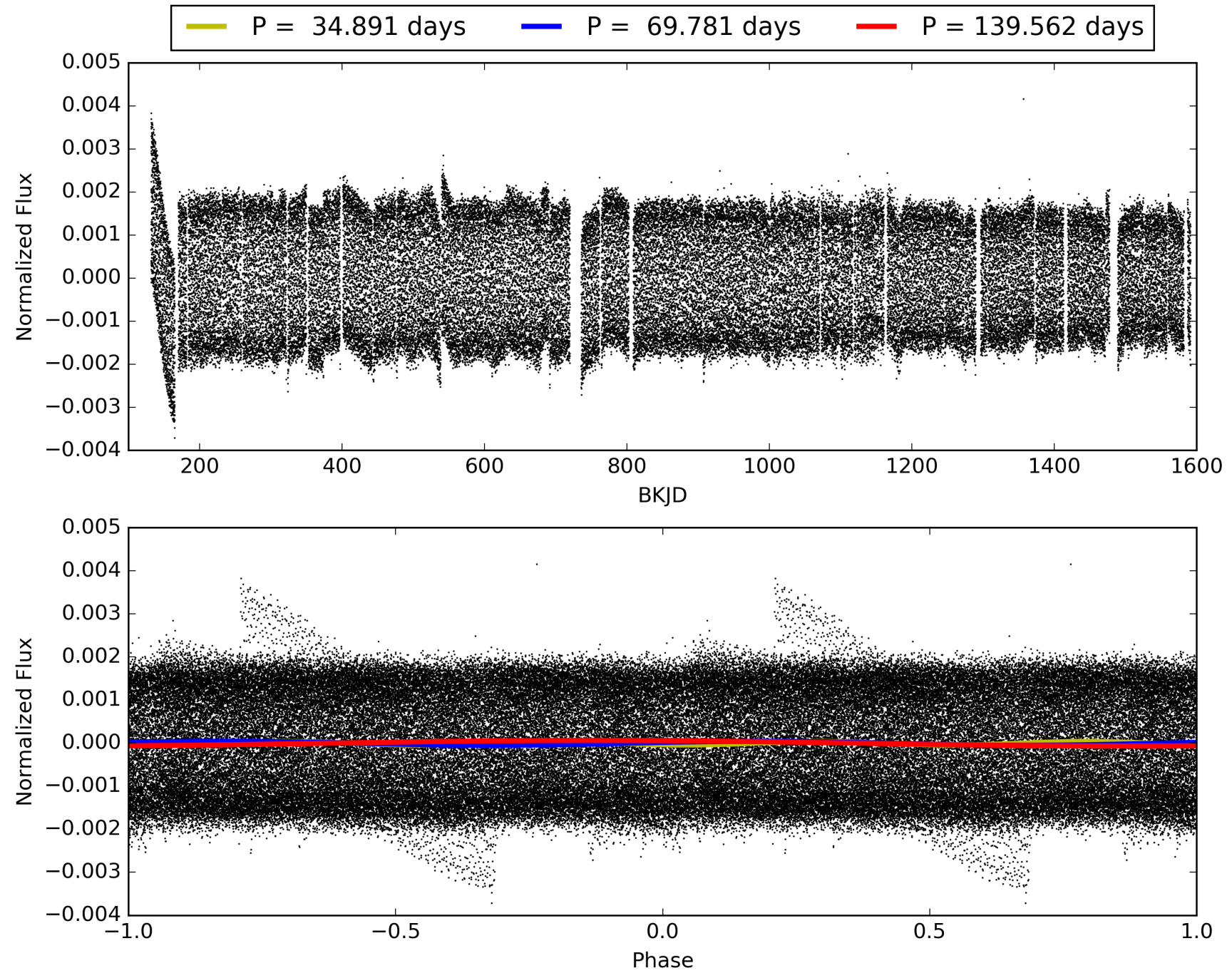
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:08:59 Z

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

TCE 006947064-04, PDC Light Curves

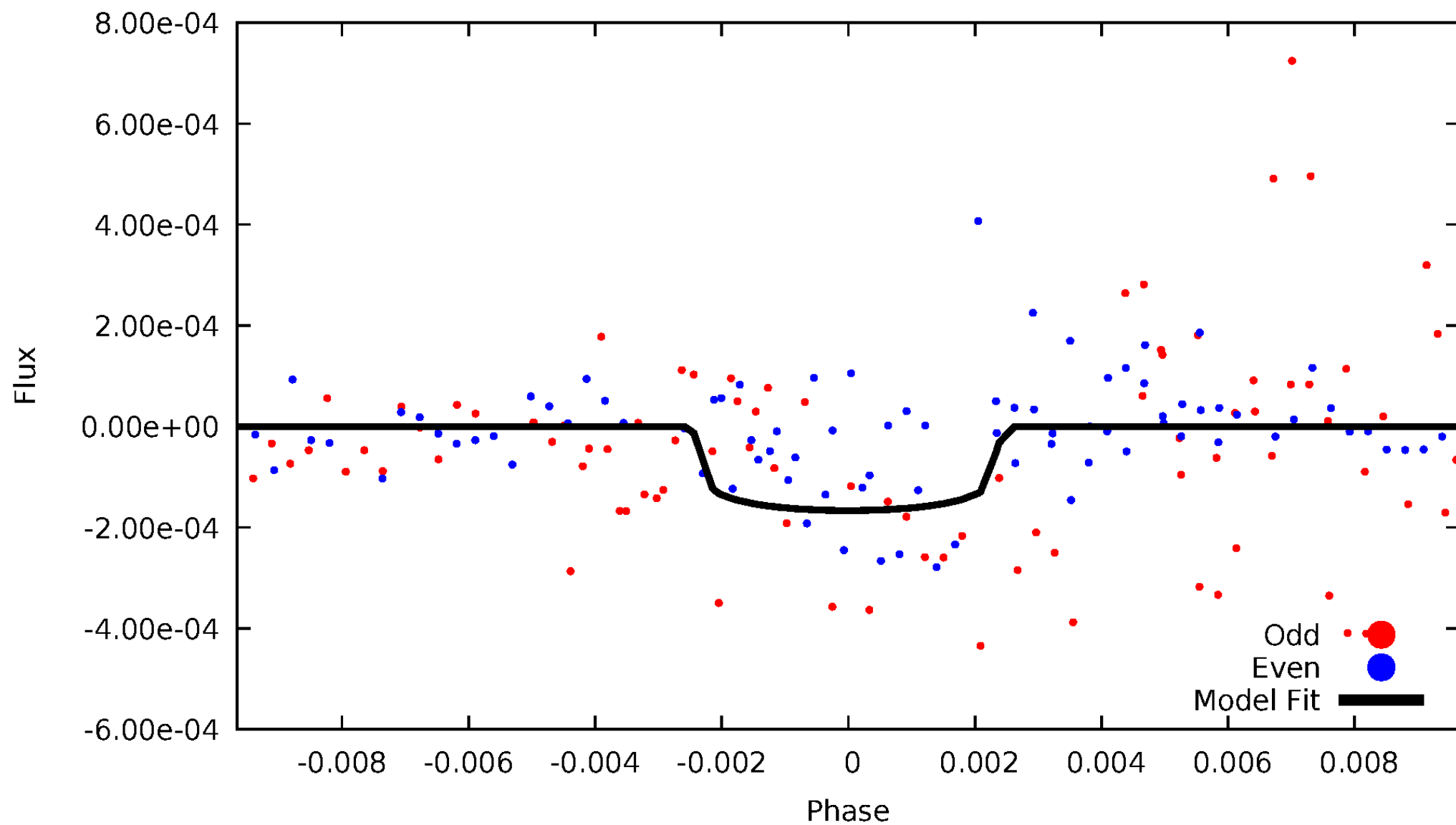


TCE 006947064-04



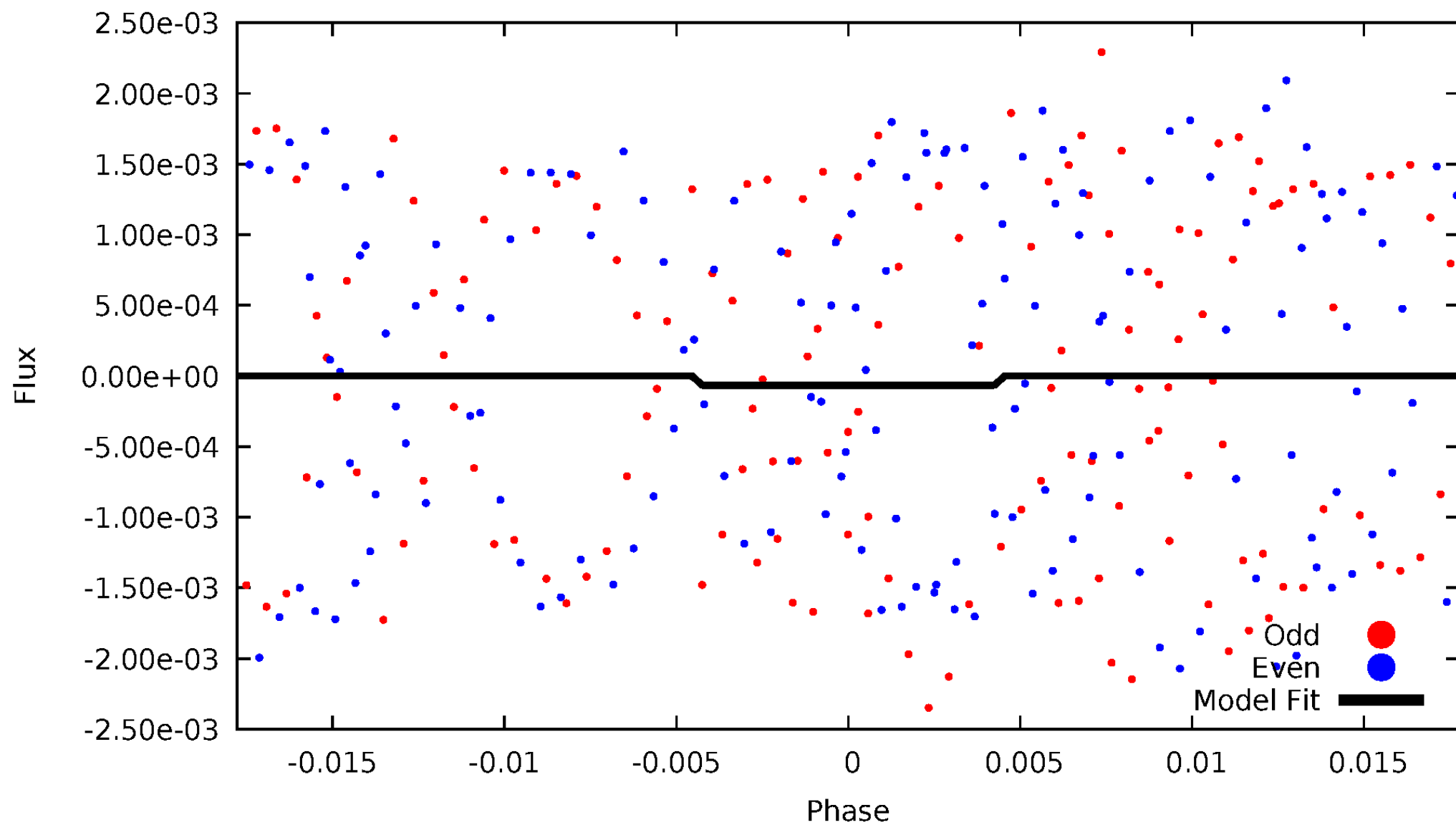
DV Odd/Even

TCE 006947064-04



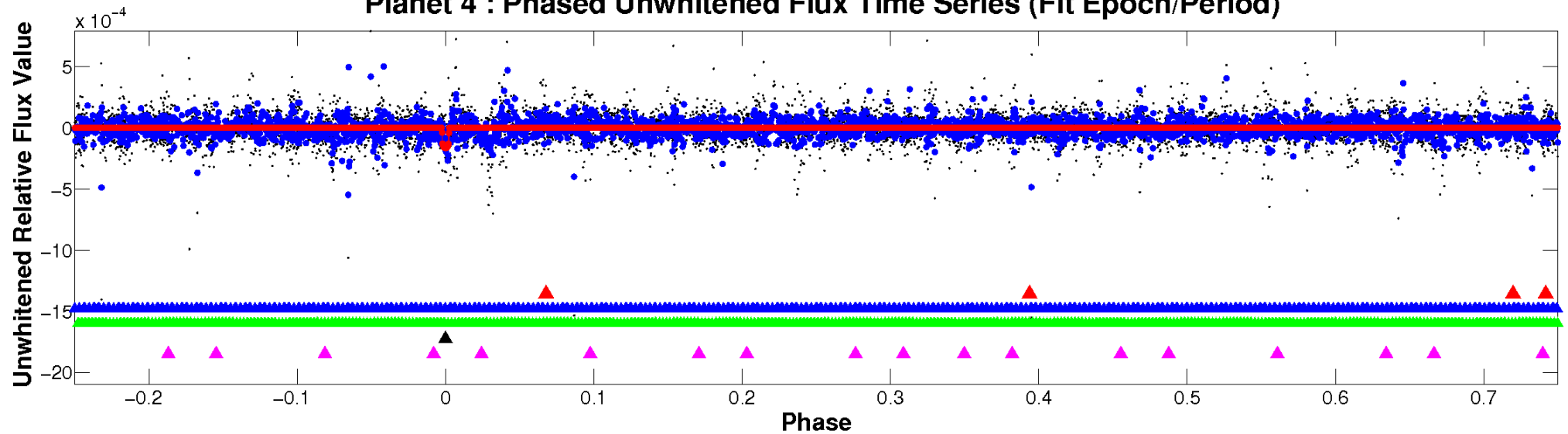
ALT Odd/Even

TCE 006947064-04

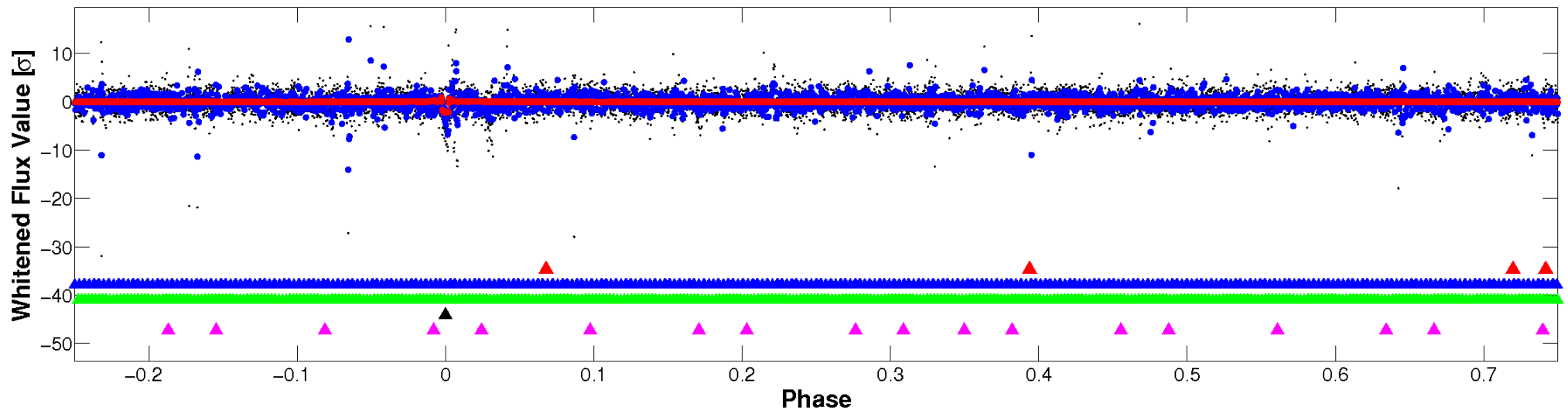


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

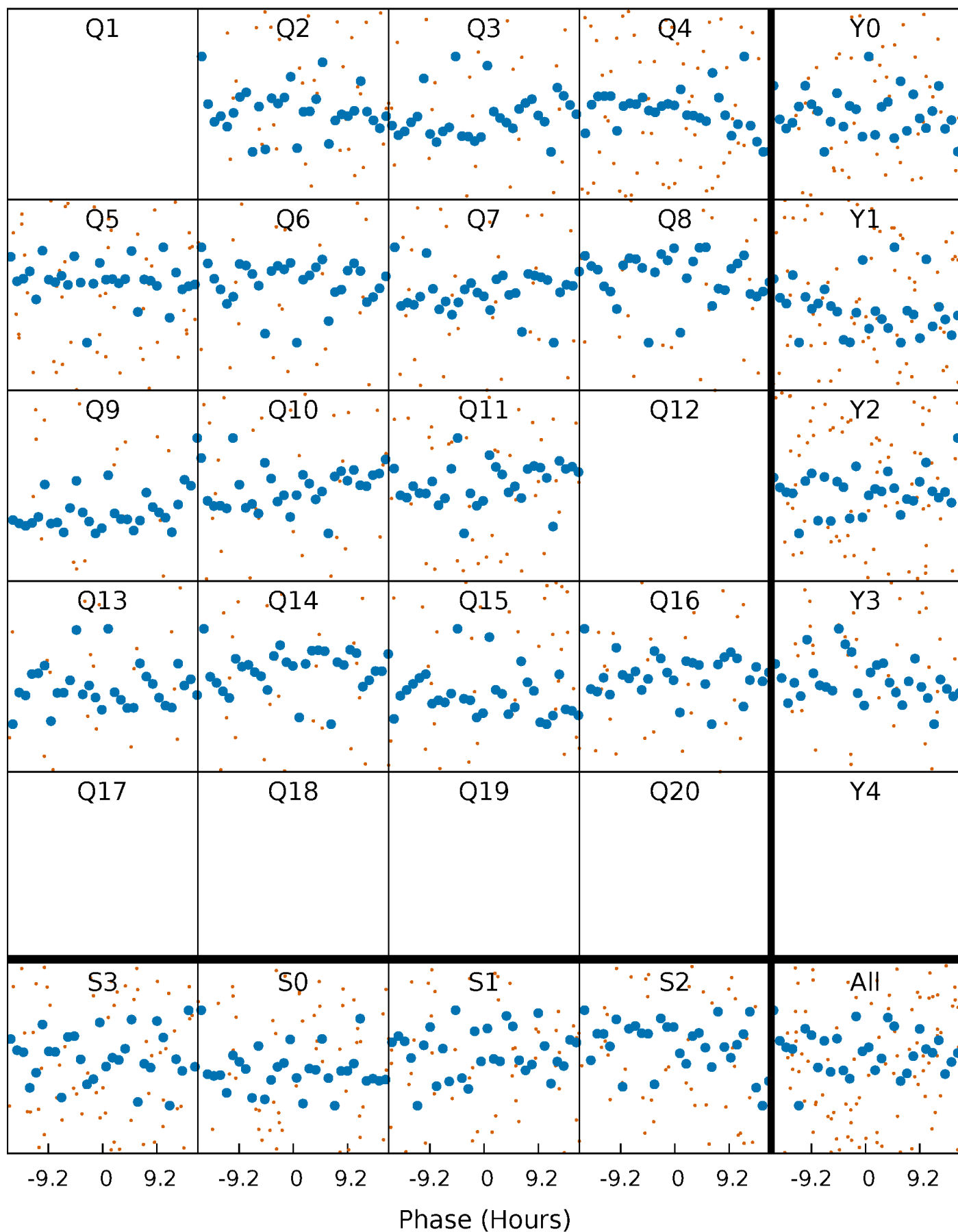


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



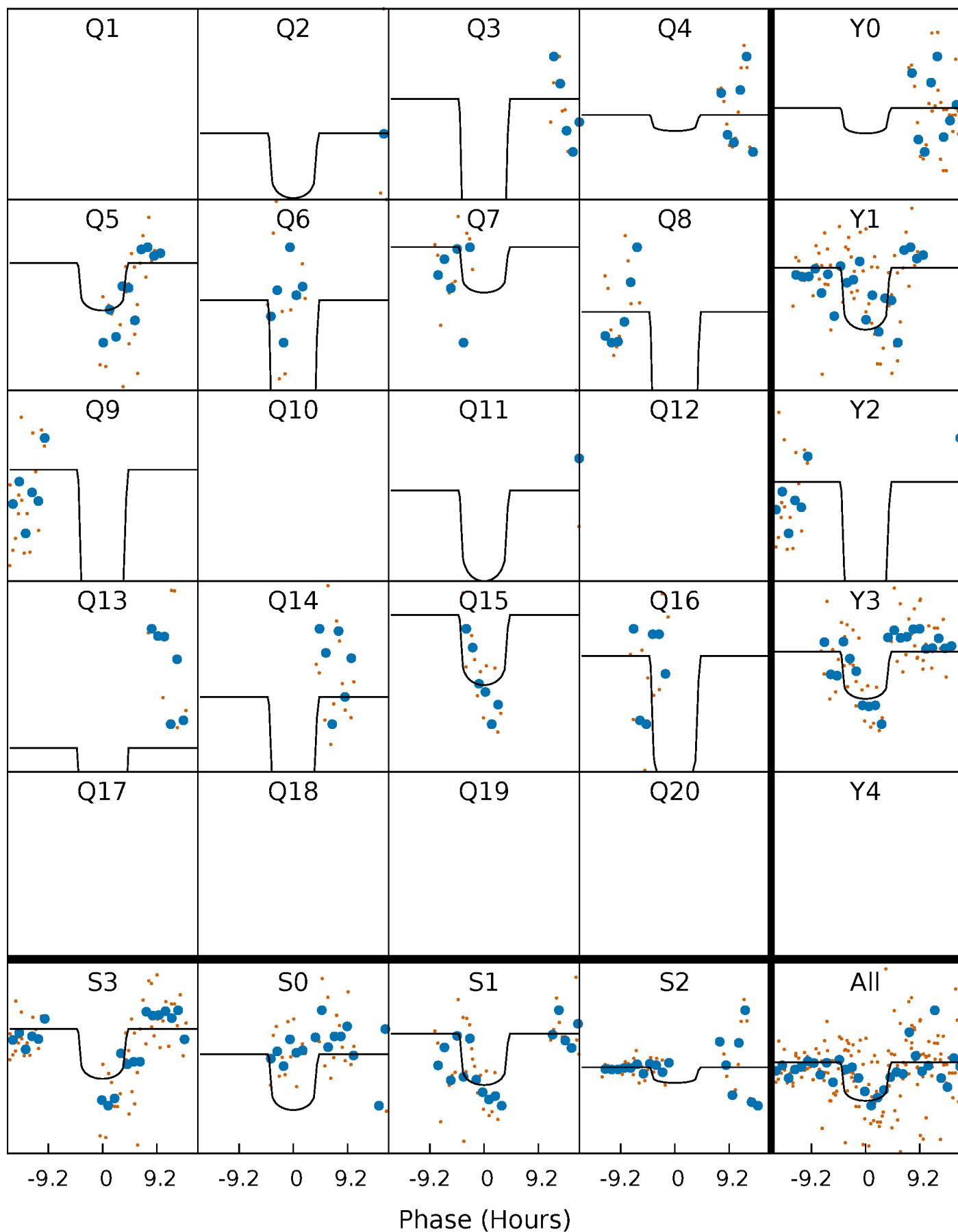
PDC Quarter-Phased Transit Curves

TCE 006947064-04 P= 69.781101 Days $T_0=186.843310$ (BKJD)



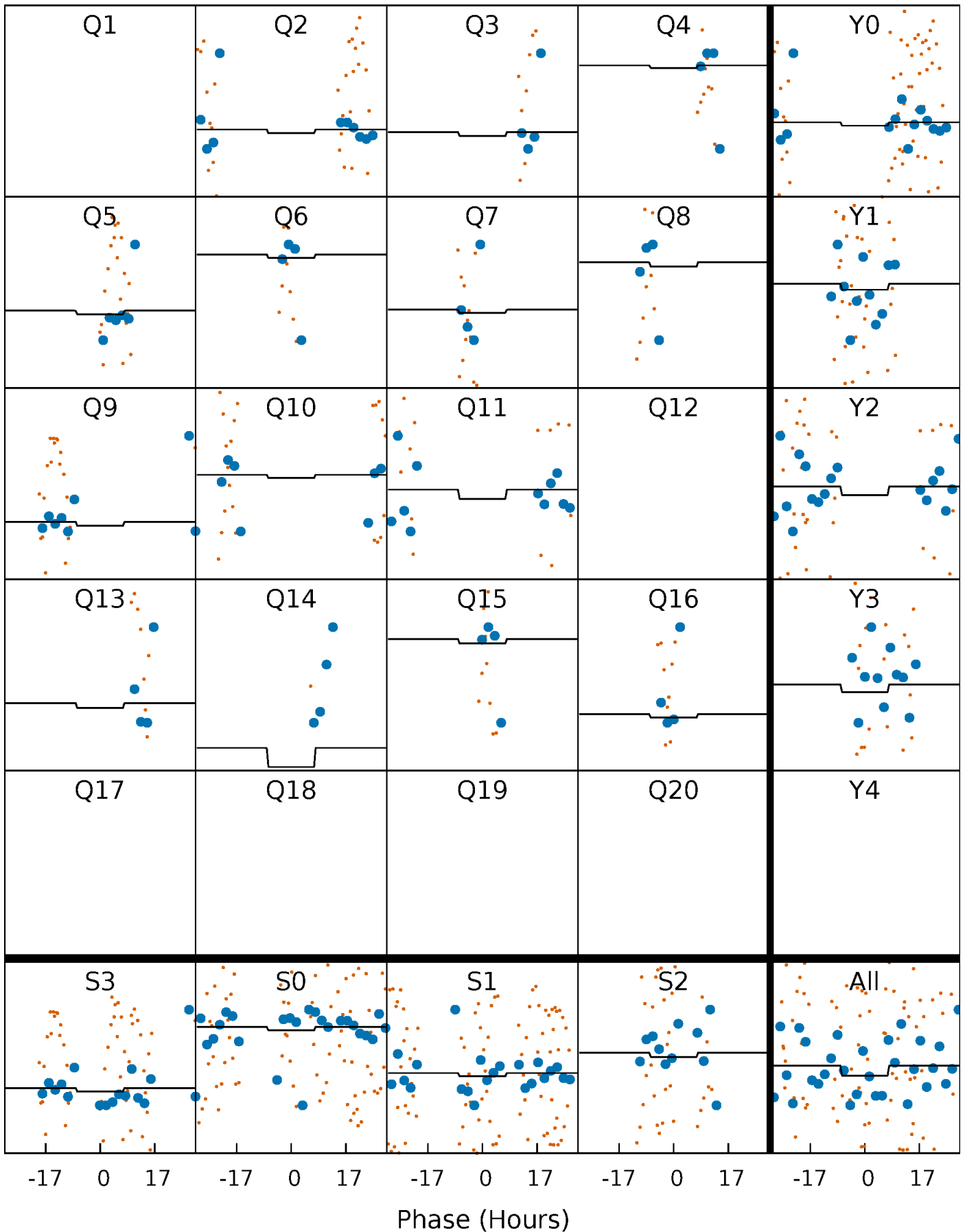
DV Quarter-Phased Transit Curves

TCE 006947064-04 P= 69.781101 Days $T_0=186.843310$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

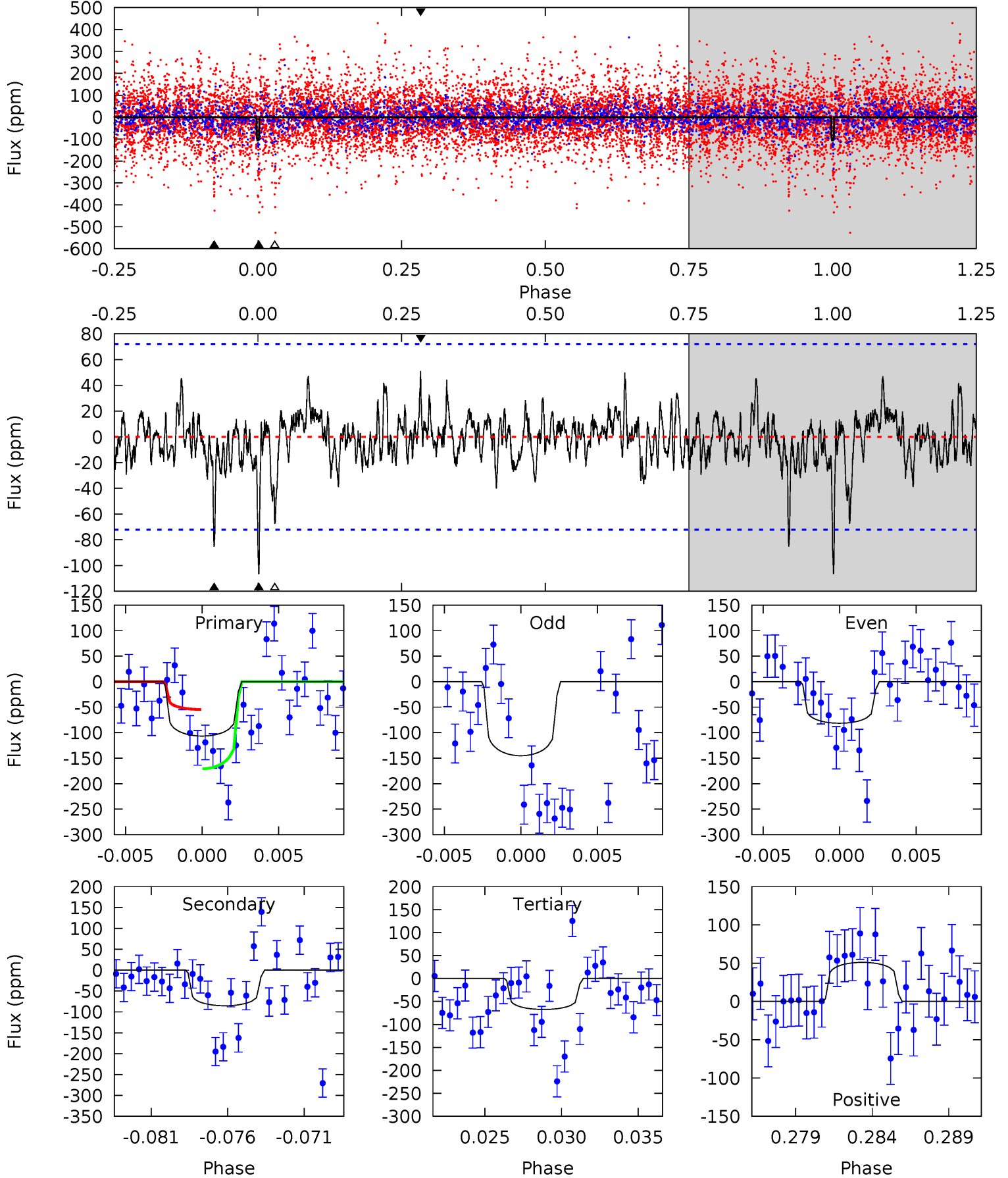
TCE 006947064-04 $P = 69.774611$ Days $T_0 = 186.858456$ (BKJD)



DV Model-Shift Uniqueness Test

006947064-04, P = 69.781101 Days, E = 117.062209 Days

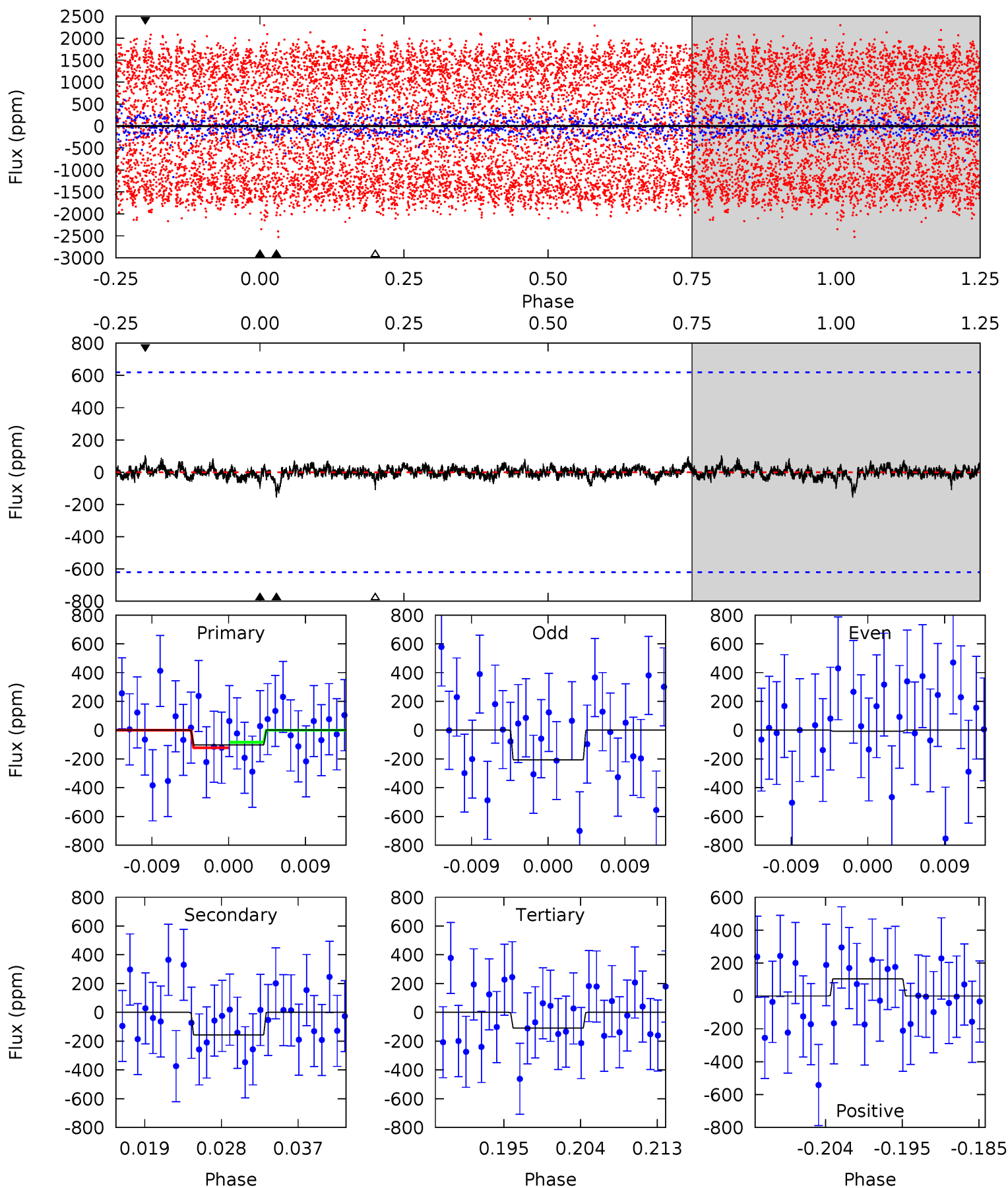
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.62	6.09	4.82	3.65	5.16	2.80	1.10	2.80	3.97	1.27	2.44	2.22	0.25	0.32	4.19



Alt Model-Shift Uniqueness Test

006947064-04, P = 69.774611 Days, E = 117.083845 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.83	1.28	0.89	0.85	5.04	2.60	0.21	-0.06	-0.01	0.39	0.43	0.81	2.93	0.40	0.16



Stellar Parameters For KIC 006947064

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8392^{+231}_{-363}	$3.919^{+0.240}_{-0.140}$	$0.070^{+0.250}_{-0.500}$	$2.664^{+0.726}_{-0.968}$	$2.149^{+0.306}_{-0.524}$	$0.160^{+0.277}_{-0.067}$
	+3%/-4%	+6%/-4%	+357%/-714%	+27%/-36%	+14%/-24%	+173%/-42%
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 006947064-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-85 ± 14	$4.53^{+3.78}_{-2.85}$	1268^{+100}_{-110}	6009^{+4587}_{-1398}	408^{+2262}_{-290}
Alt.	-157 ± 123	$3.65^{+3.36}_{-2.40}$	1267^{+105}_{-105}	7533^{+10488}_{-2784}	913^{+7345}_{-785}

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

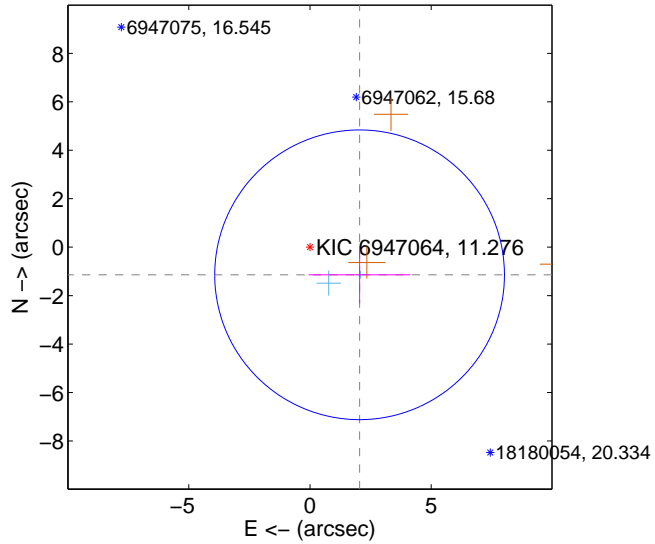
Supplemental centroid analysis for 006947064-04. **Kepler magnitude: 11.28.** Transit SNR 13.26

There are 2 quarters with good PRF difference image offsets

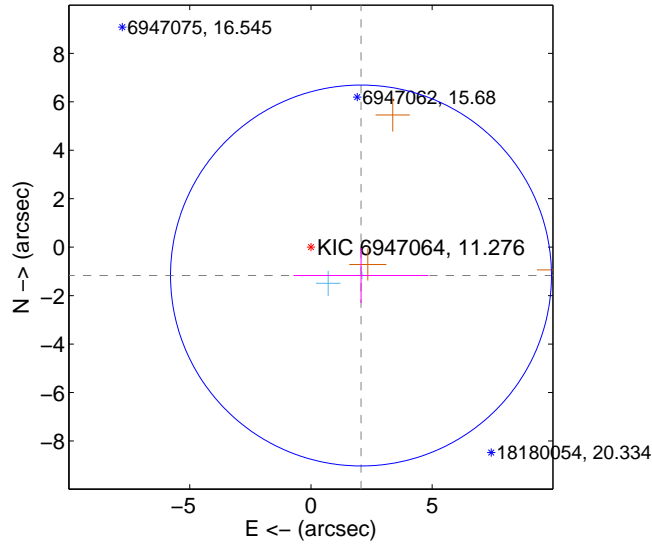
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.343 ± 1.993	1.18	-2.047 ± 2.100	-1.140 ± 1.183
PRF-fit source offset from KIC position	2.373 ± 2.620	0.91	-2.065 ± 2.788	-1.169 ± 1.135
photometric centroid source offset	0.53 ± 0.39	1.34	-0.22 ± 0.41	0.48 ± 0.39

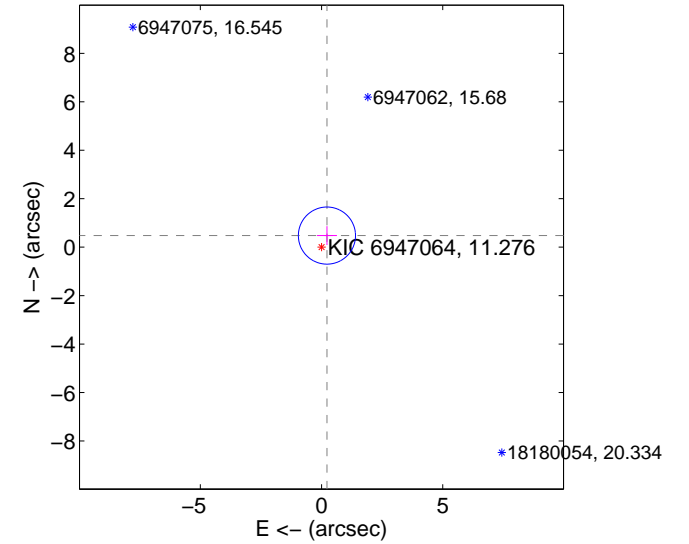
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

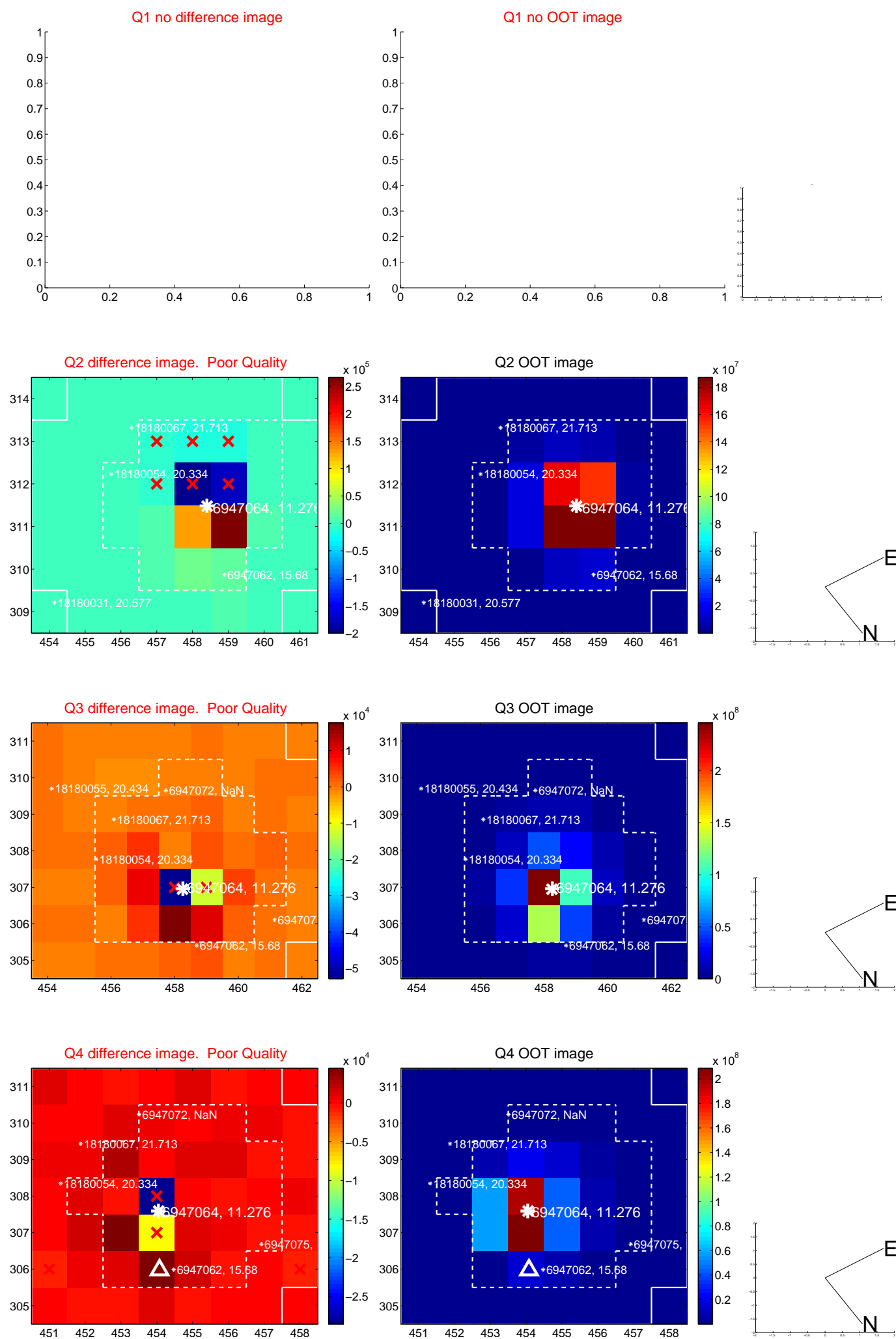


offset from photometric centroids

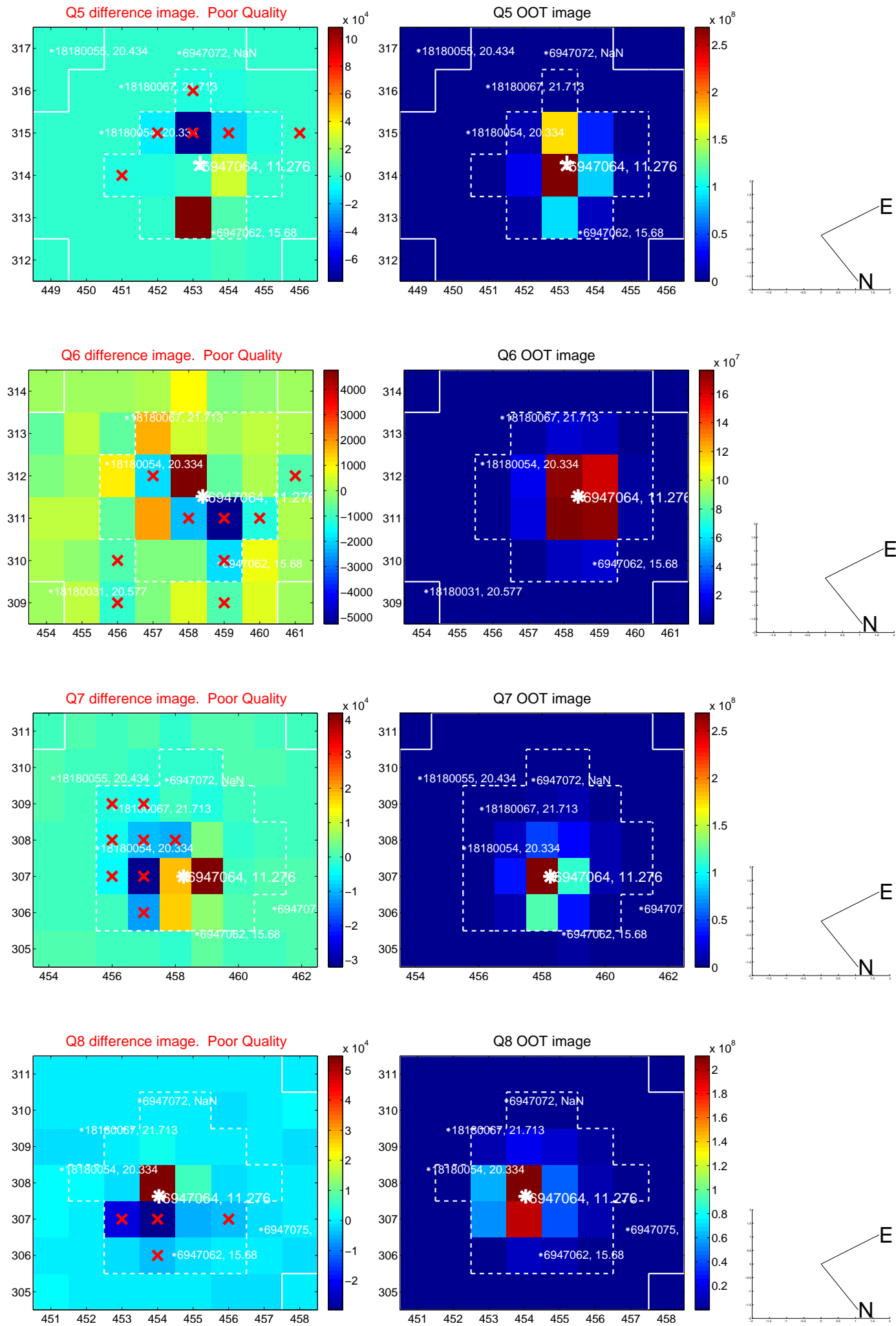


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

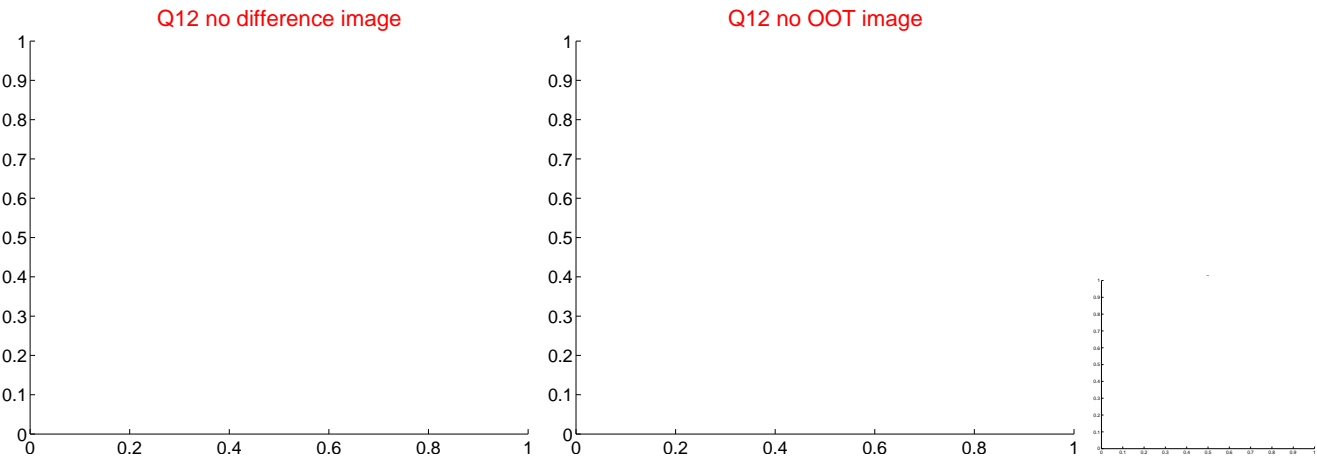
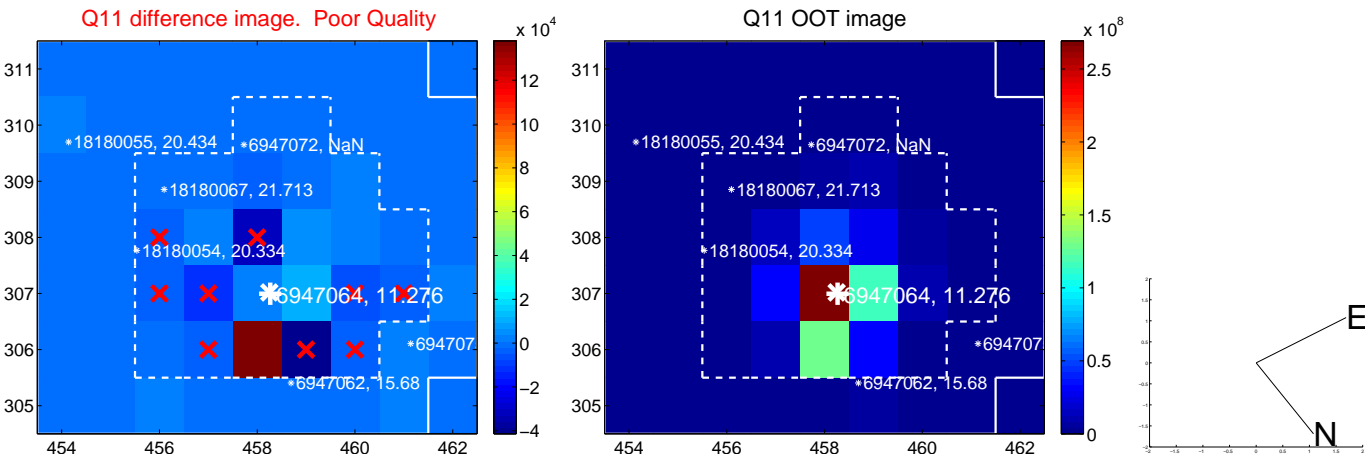
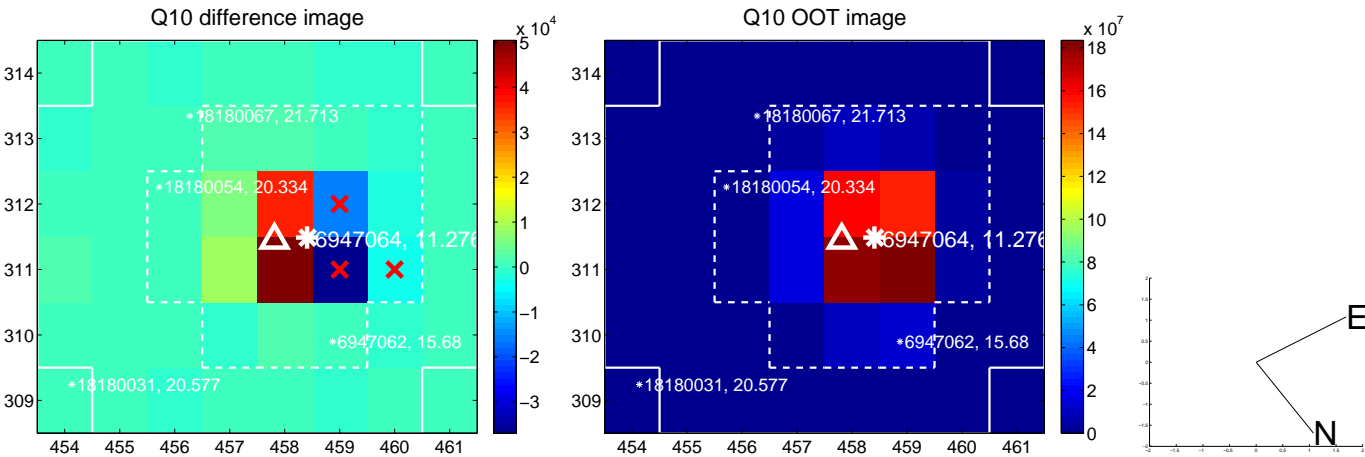
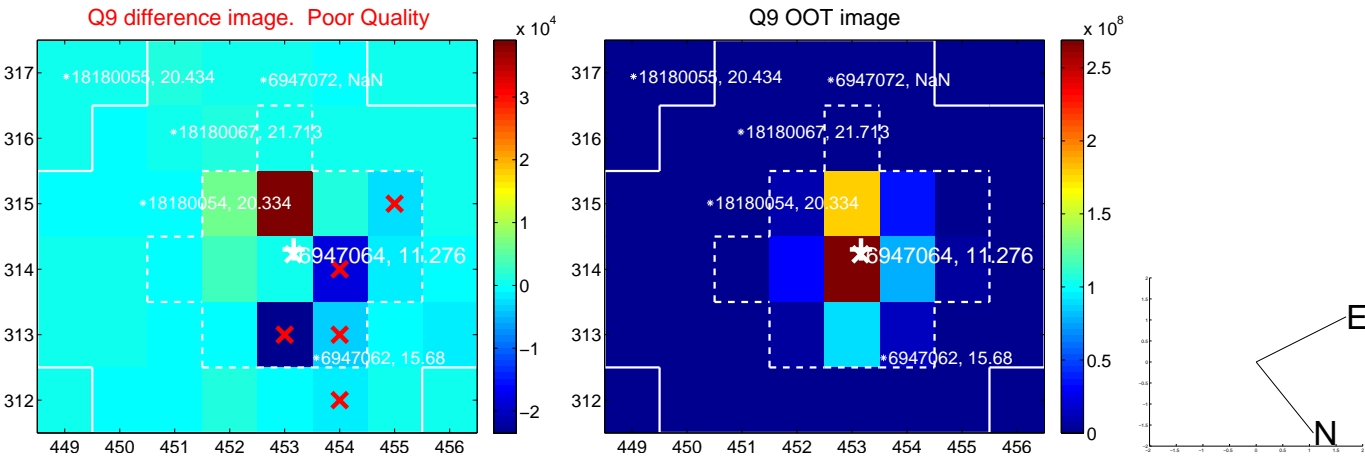
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



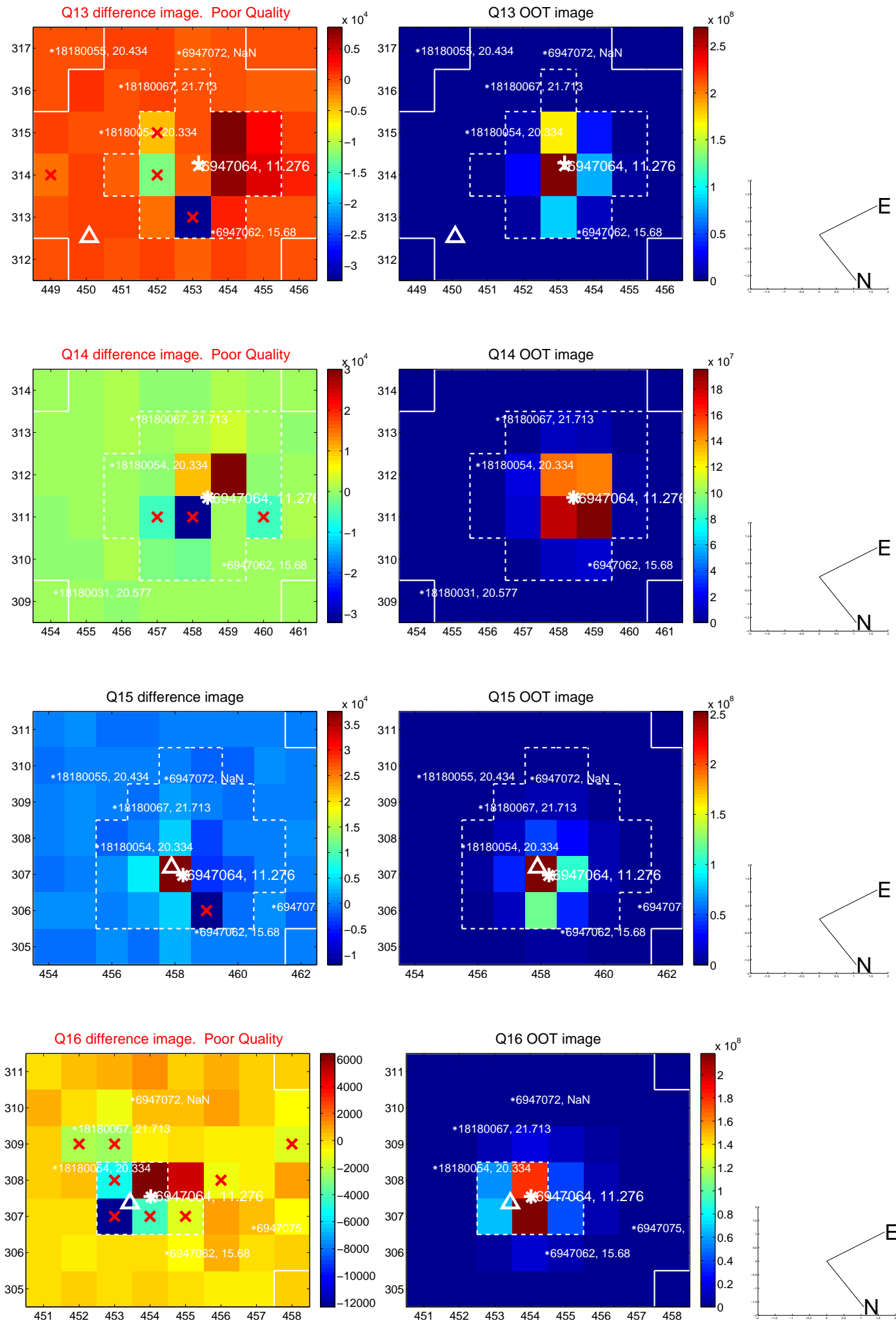
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



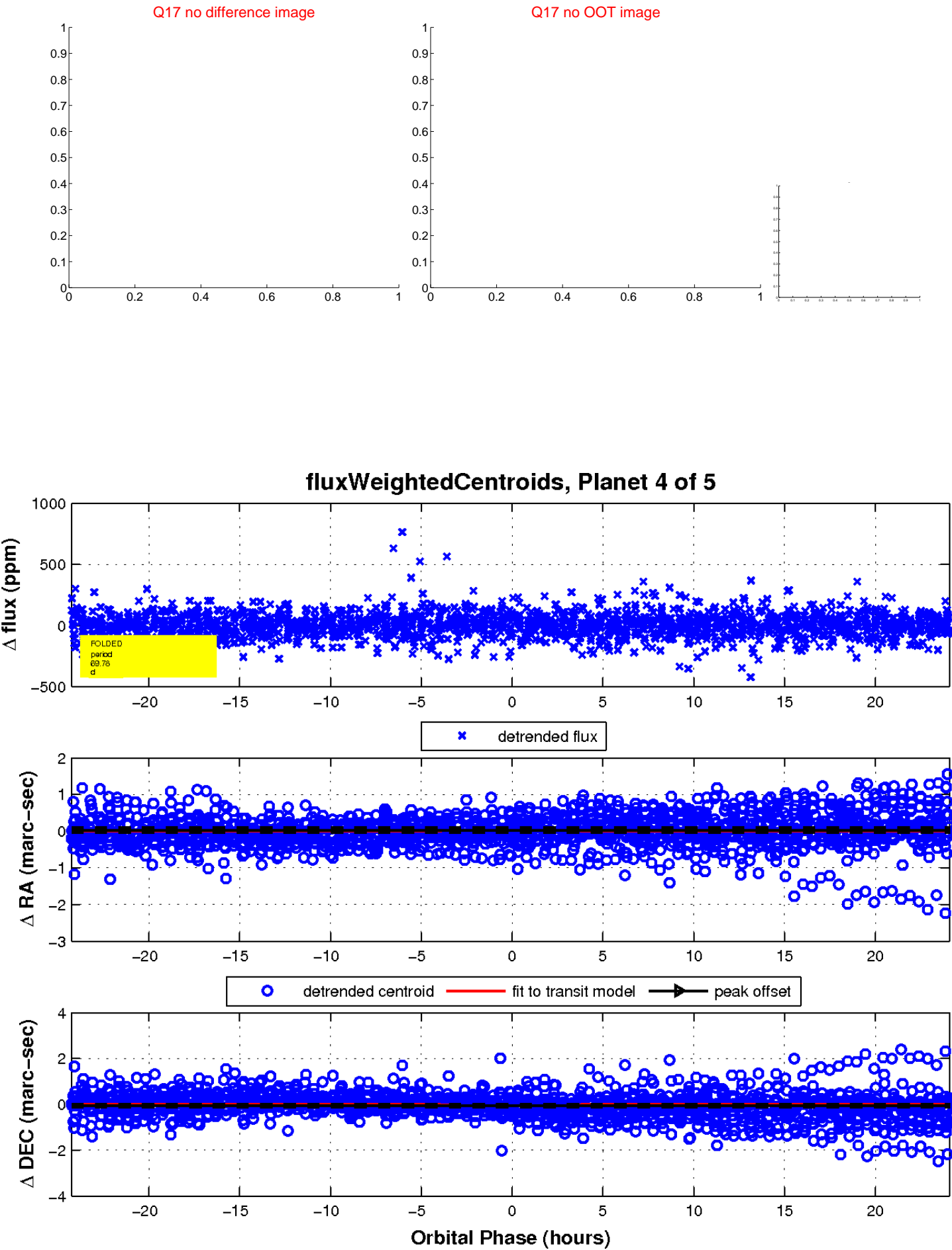
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



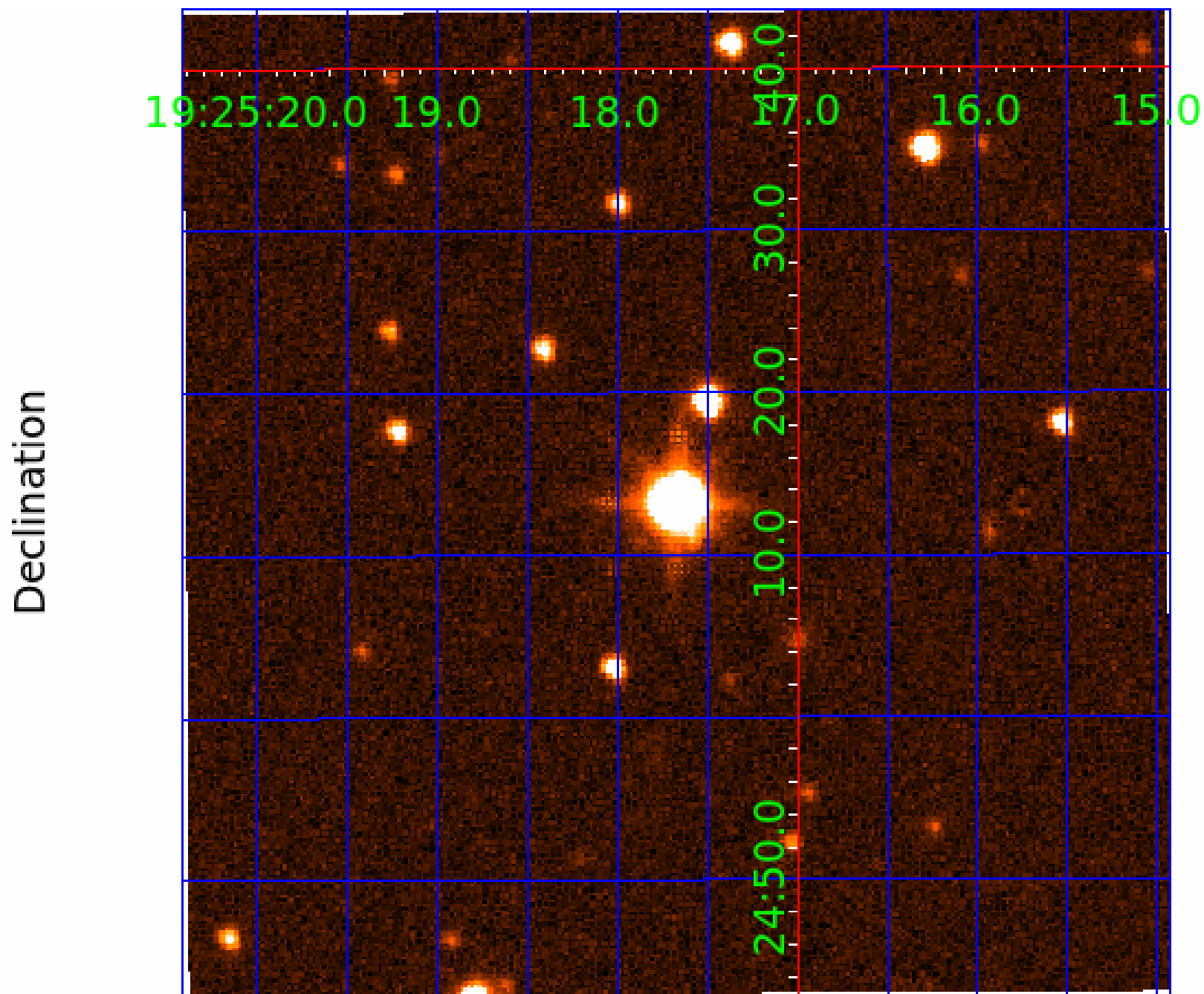
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006947064

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})
006947064-01	OBS	No	441.434847	168.827594	201.7	17.595	22.8	13.7	2.66	8392	4.29	14.71
006947064-02	OBS	No	2.983910	132.698816	0.7	0.838	9.5	0.2	2.66	8392	0.24	11507.95
006947064-03	OBS	No	1.989089	133.064284	7.6	13.474	8.8	10.4	2.66	8392	0.77	19762.42
006947064-04	OBS	No	69.781101	186.843310	166.7	8.086	26.3	13.3	2.66	8392	3.82	172.08
006947064-05	OBS	No	82.263943	138.604381	170.9	6.687	18.1	12.8	2.66	8392	3.77	138.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006947064-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006947064-02	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—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
006947064-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006947064-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

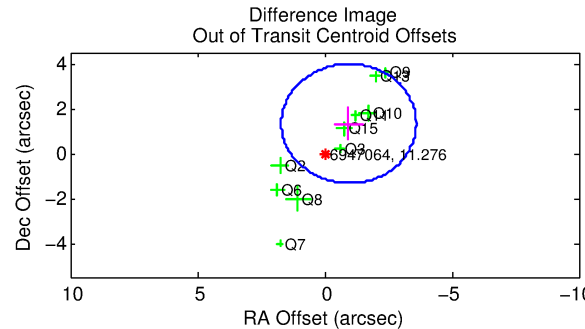
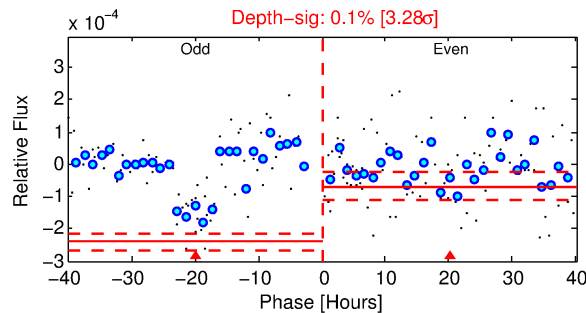
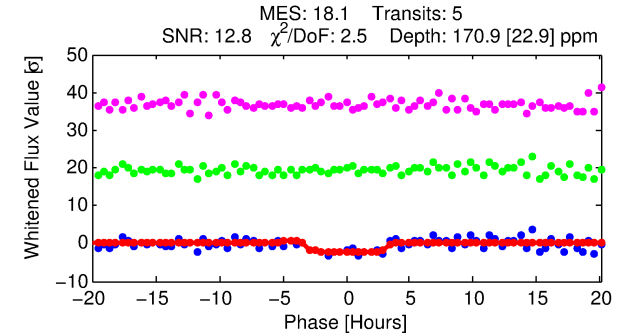
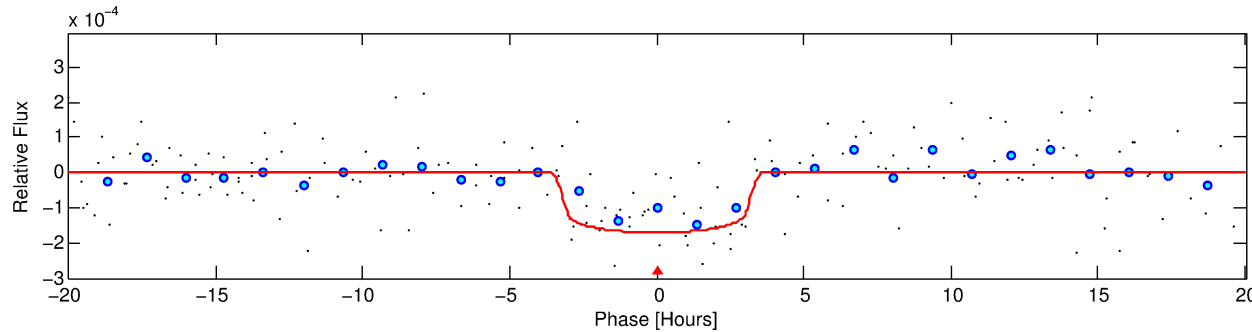
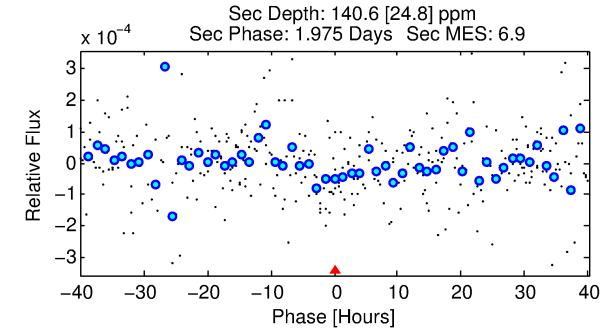
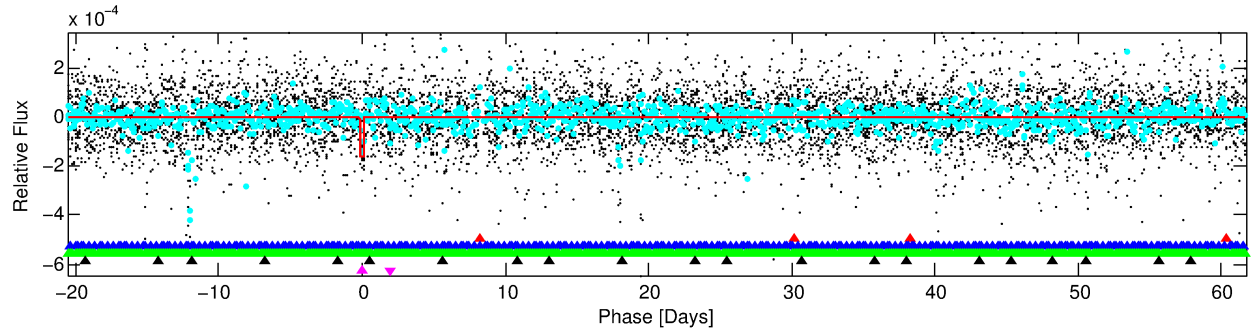
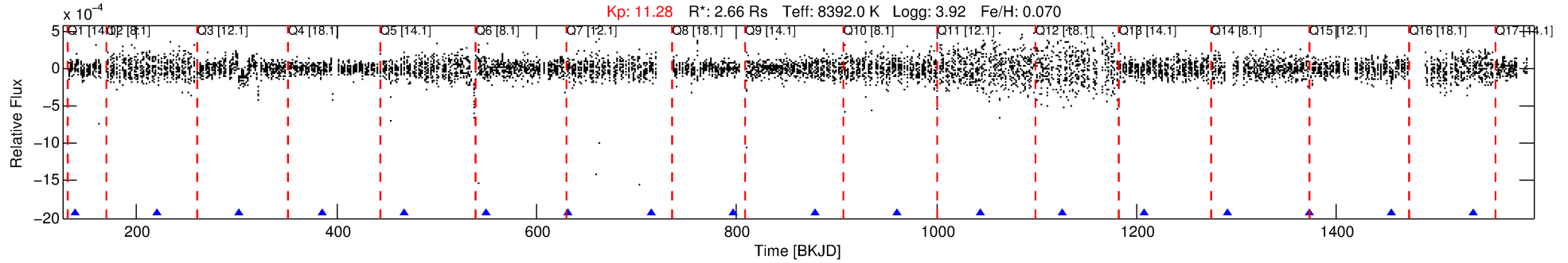
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006947064-05

No Significant Match Found

DV One-Page Summary

KIC: 6947064 Candidate: 5 of 5 Period: 82.264 d



DV Fit Results:

Period = 82.26394 [0.00129] d
Epoch = 138.6044 [0.0159] BKJD
Rp/R* = 0.0130 [0.0093]
a/R* = 65.26 [284.96]
b = 0.74 [2.70]
Seff = 138.18 [65.45]
Teq = 874 [104] K
Rp = 3.77 [3.04] Re
a = 0.4777 [0.1454] AU
Ag = 1243.30 [1882.68] [0.66σ]
Teffp = 8026 [2927] K [2.44σ]

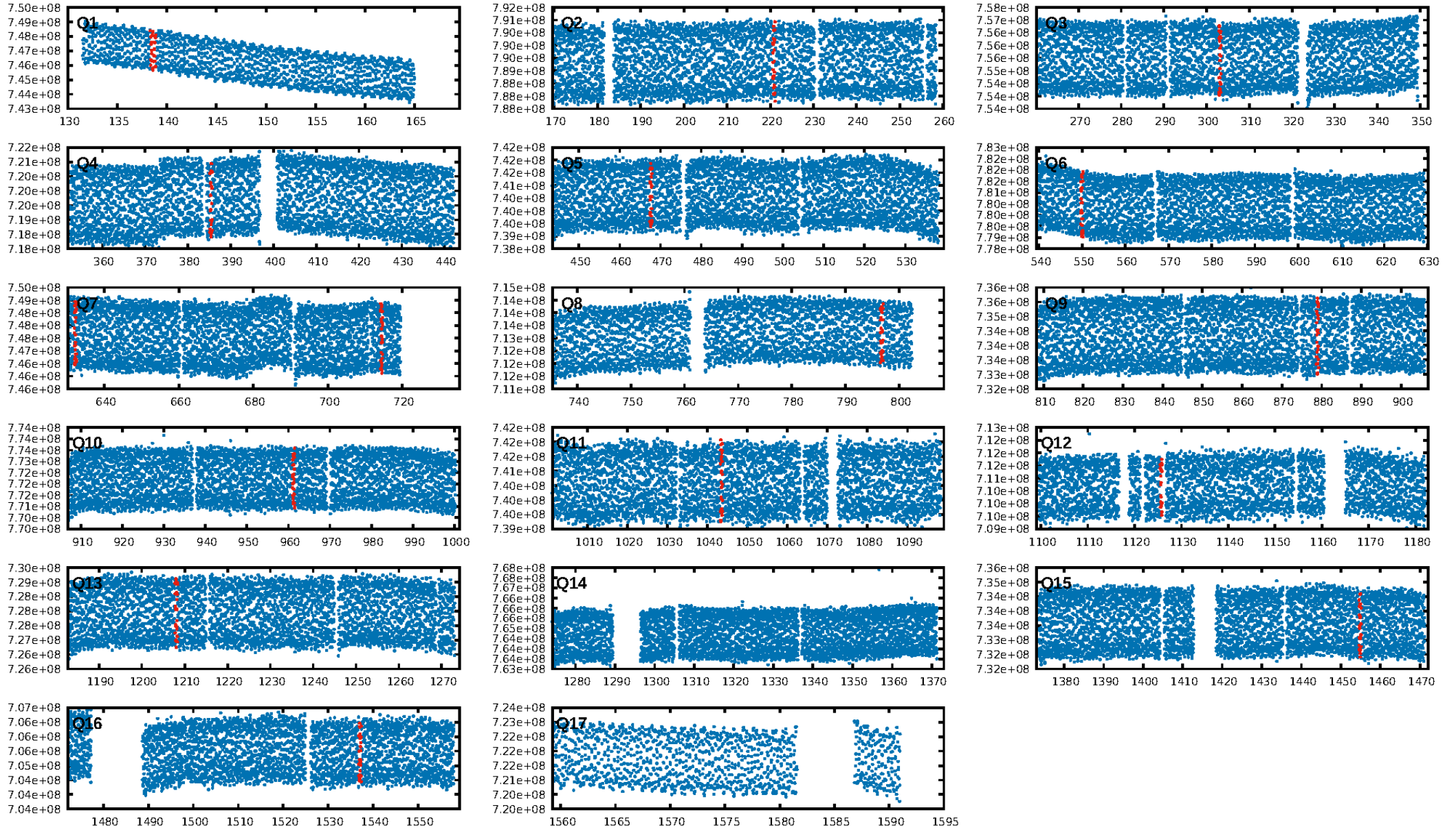
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [28.55σ]
LongPeriod-sig: 100.0% [457.95σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 76.9%
Bootstrap-pfa: 6.95e-89
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 2.805
Centroid-sig: 1.3%
Centroid-so: 0.840 arcsec [1.95σ]
OotOffset-rm: 1.634 arcsec [1.85σ]
OotOffset-st: 3/4/1/2 [10]
KicOffset-rm: 1.567 arcsec [1.78σ]
KicOffset-st: 3/4/1/2 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 0.08 [1/13]

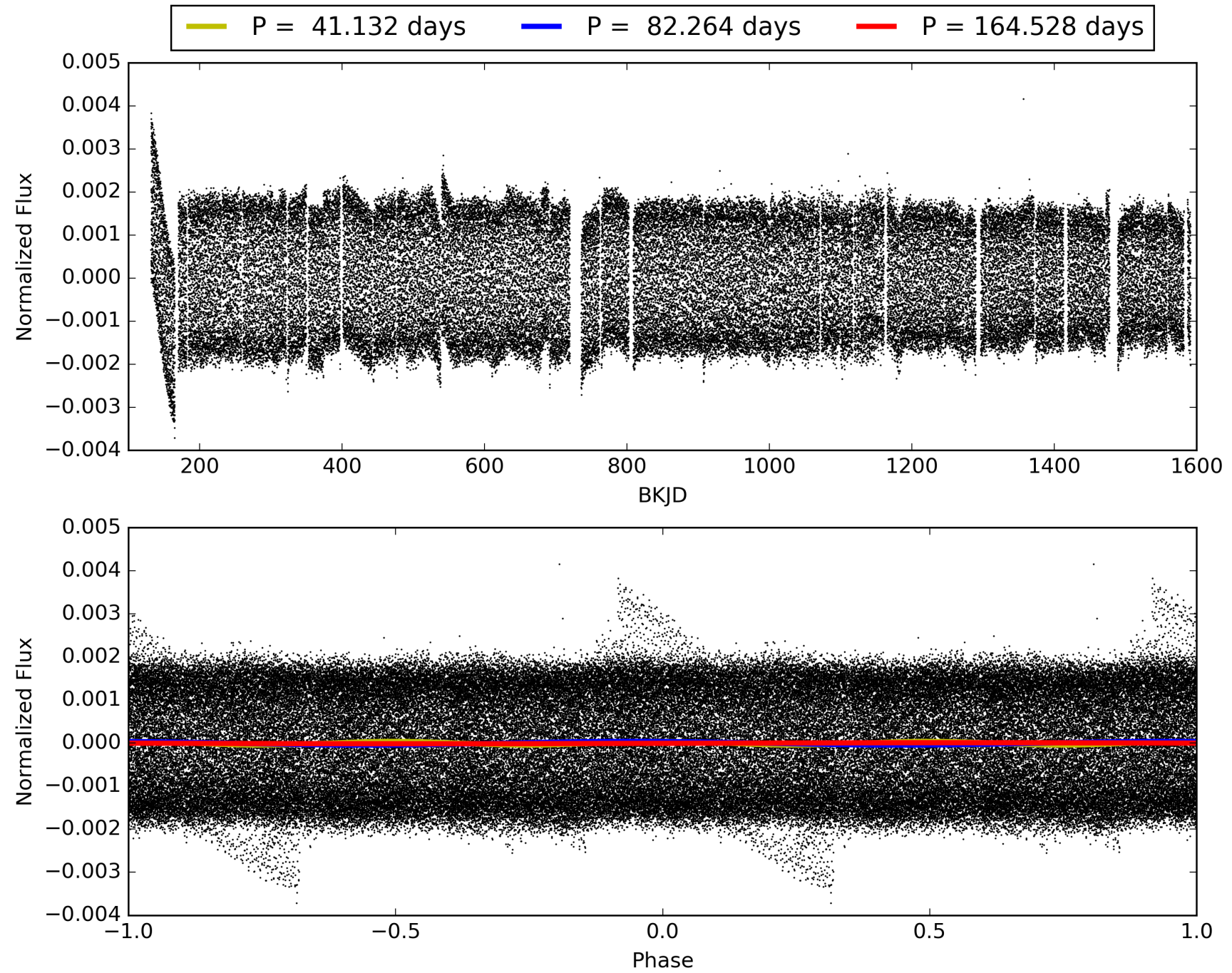
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:09:02 Z

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

TCE 006947064-05, PDC Light Curves

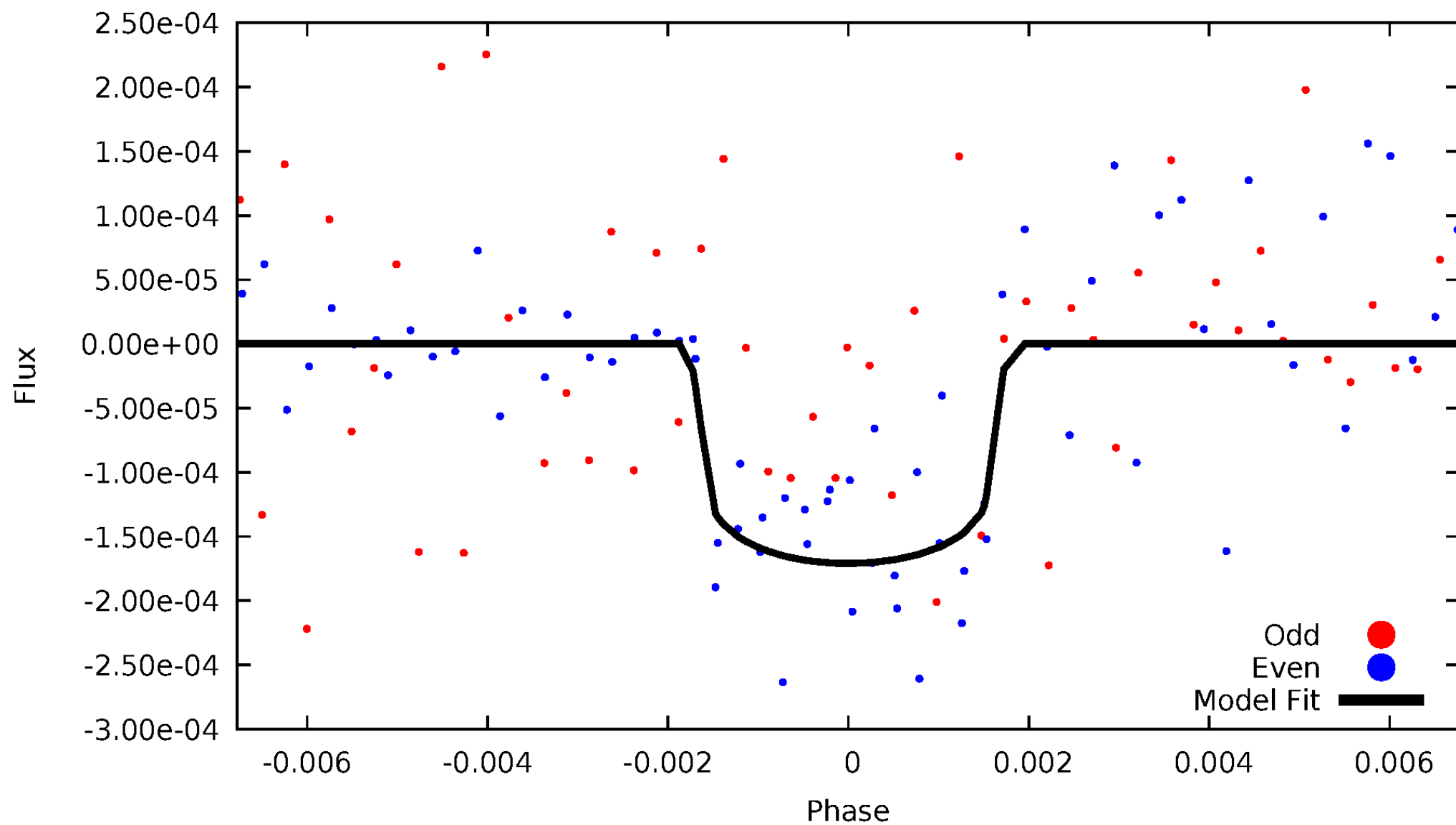


TCE 006947064-05



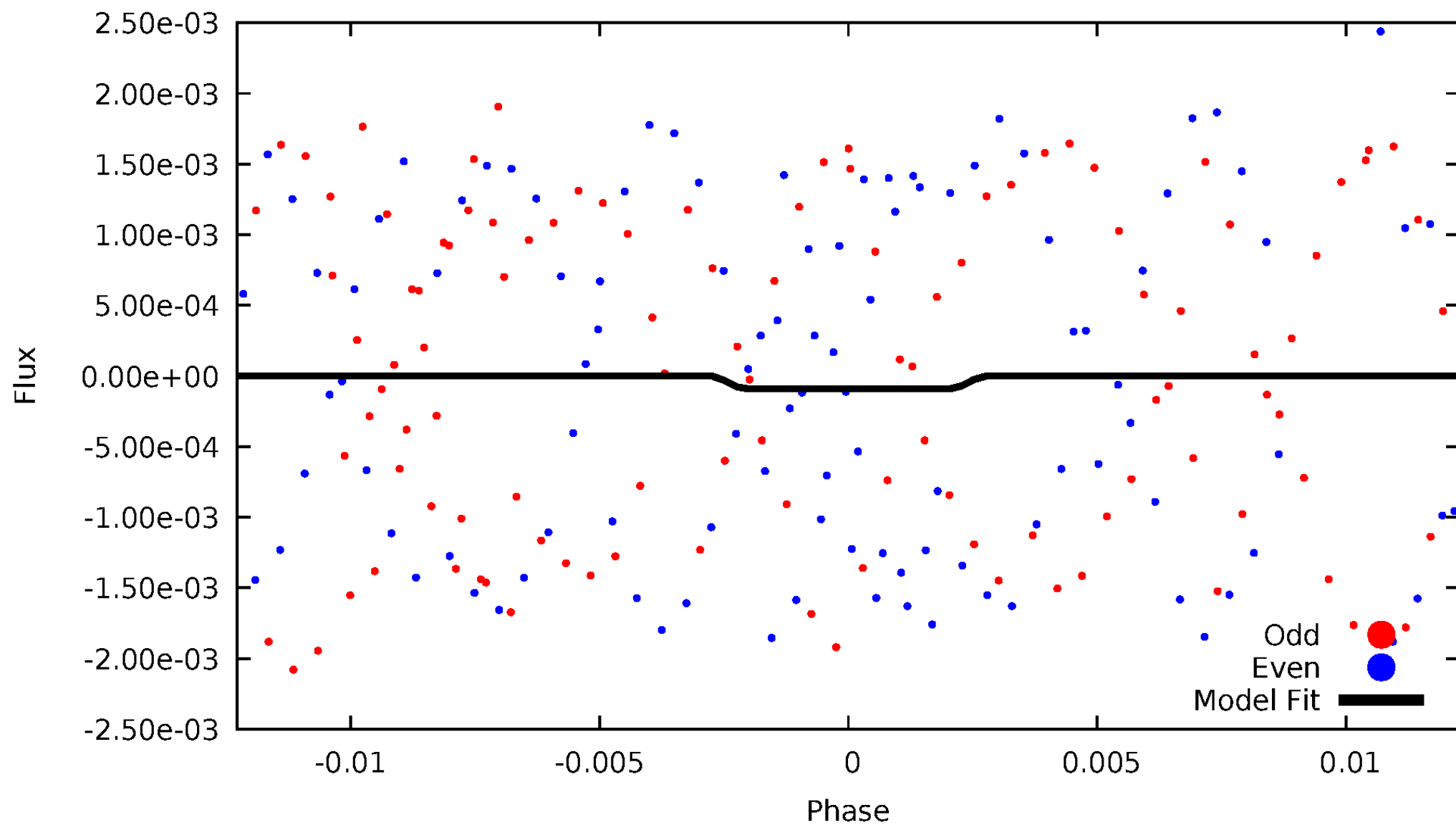
DV Odd/Even

TCE 006947064-05



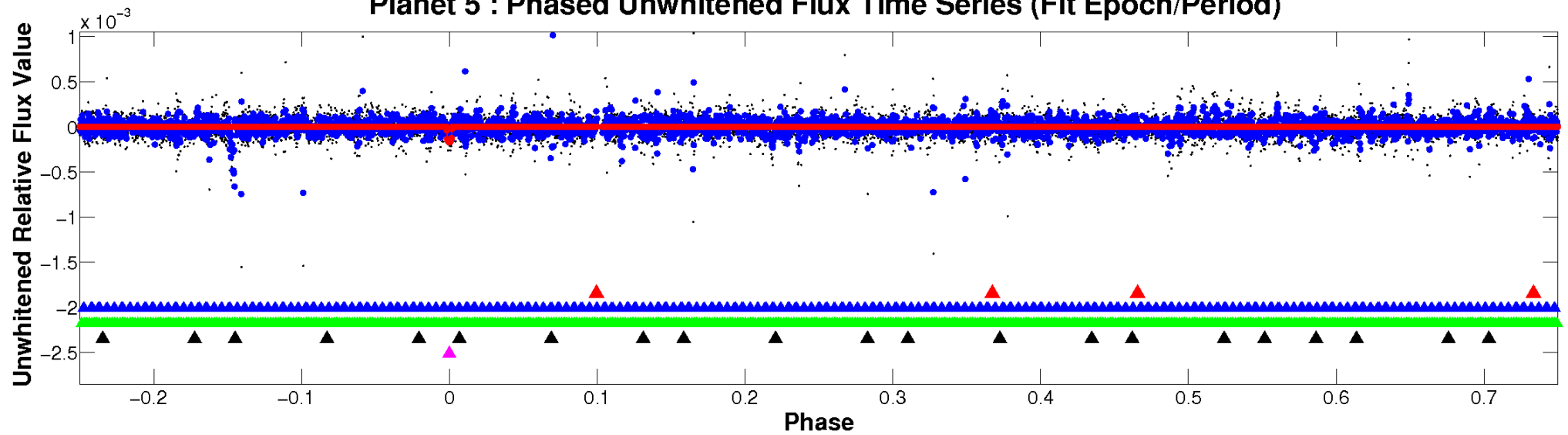
ALT Odd/Even

TCE 006947064-05

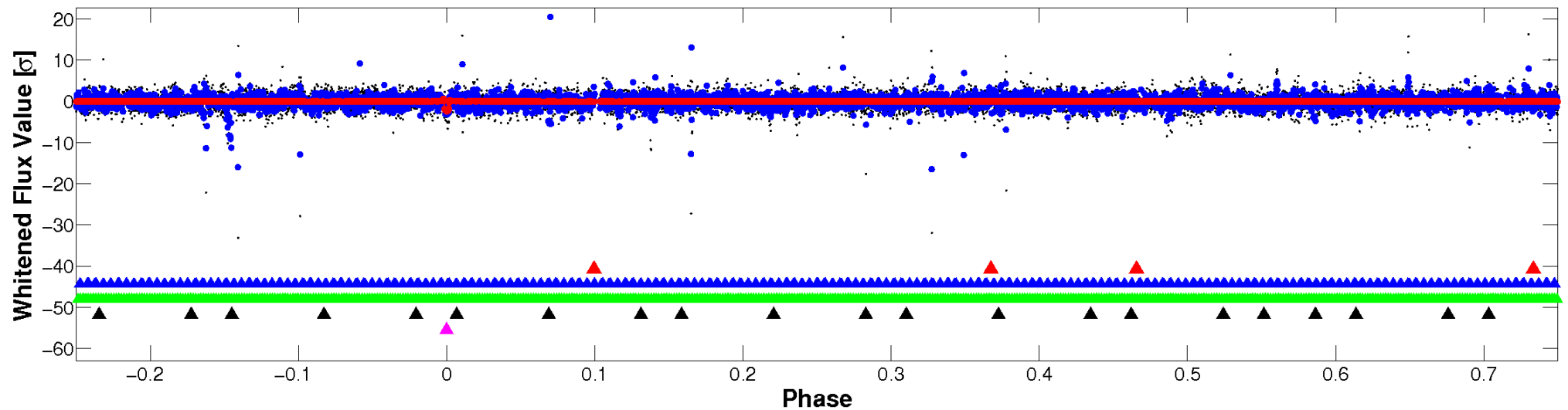


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

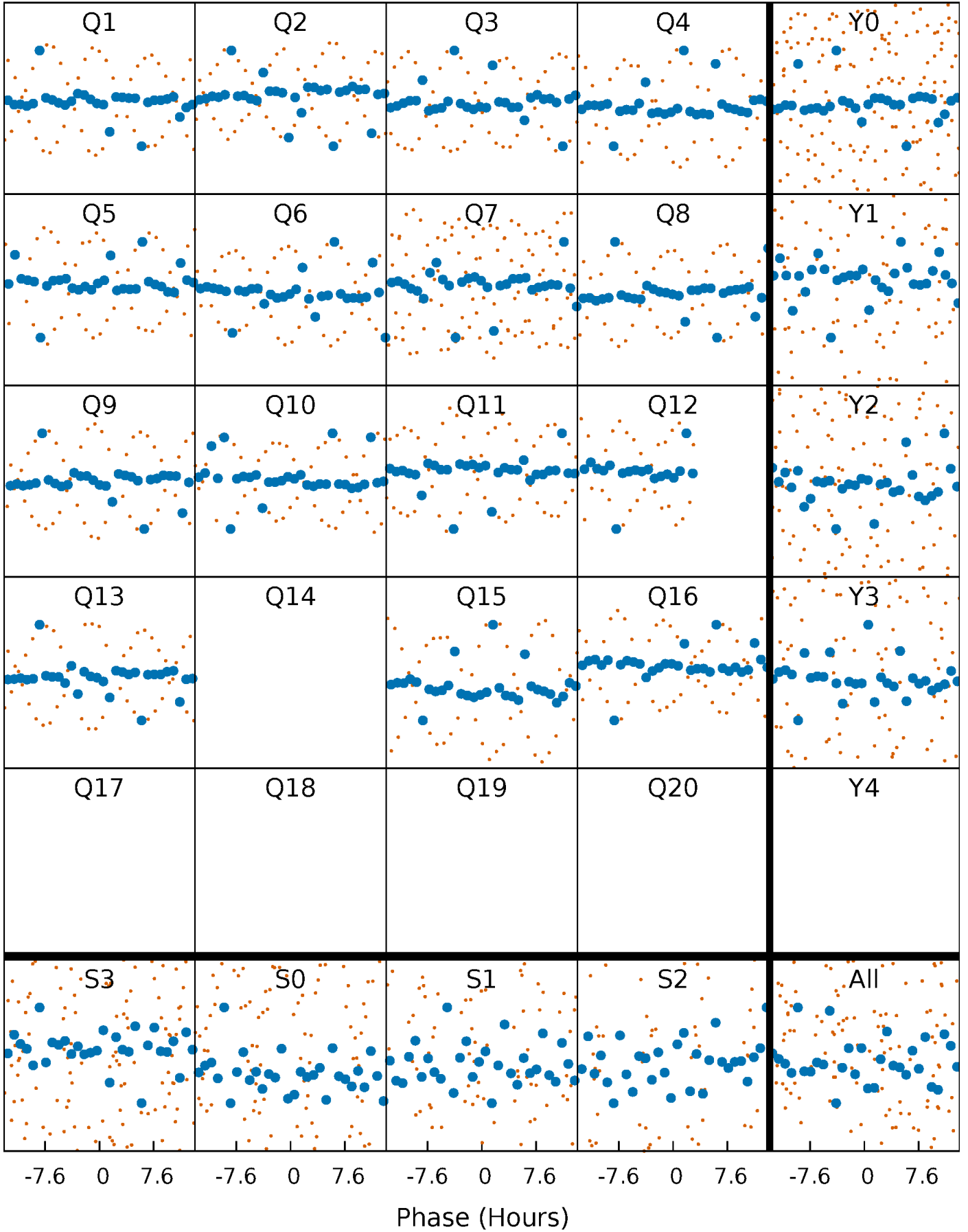


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



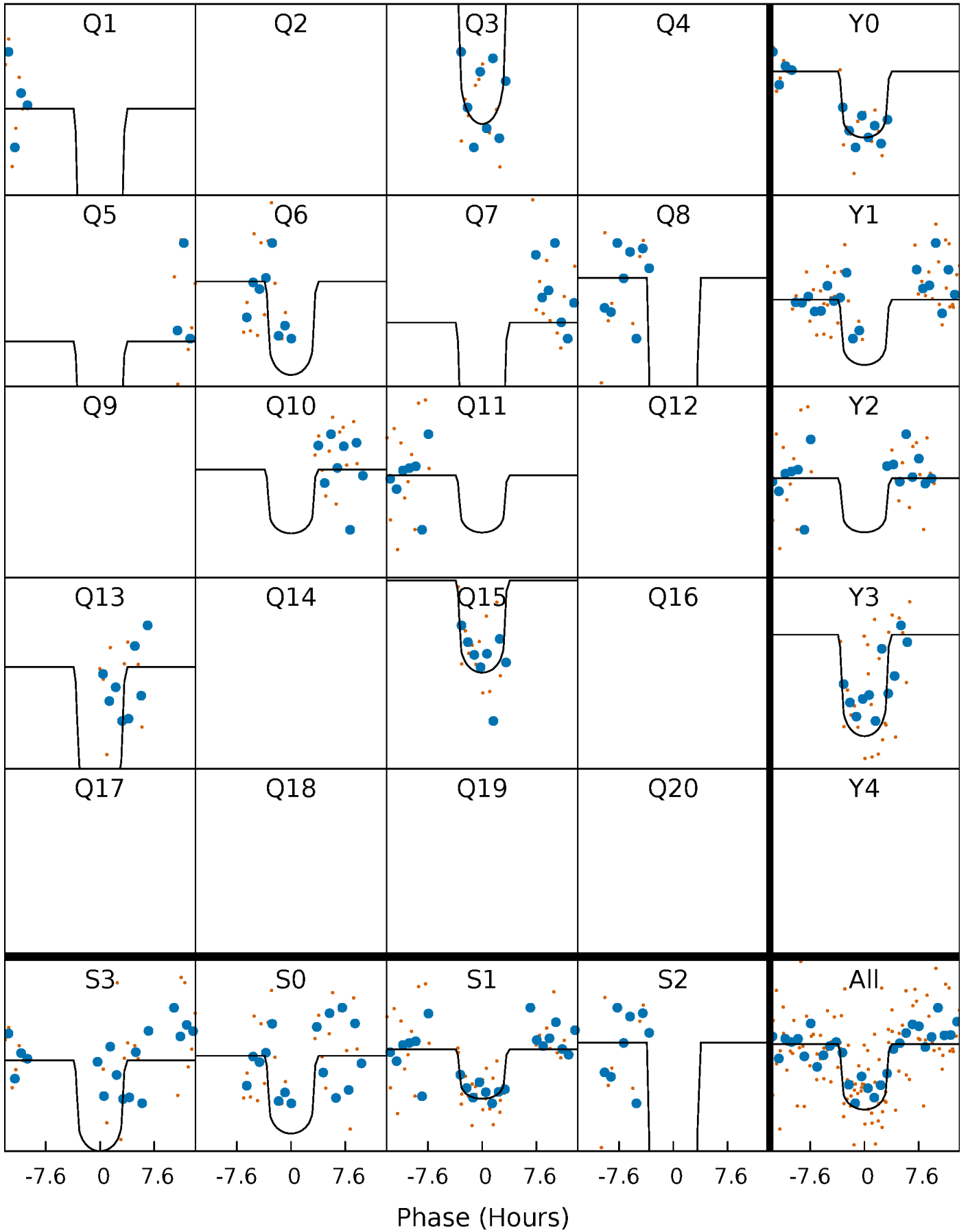
PDC Quarter-Phased Transit Curves

TCE 006947064-05 P= 82.263943 Days $T_0=138.604381$ (BKJD)



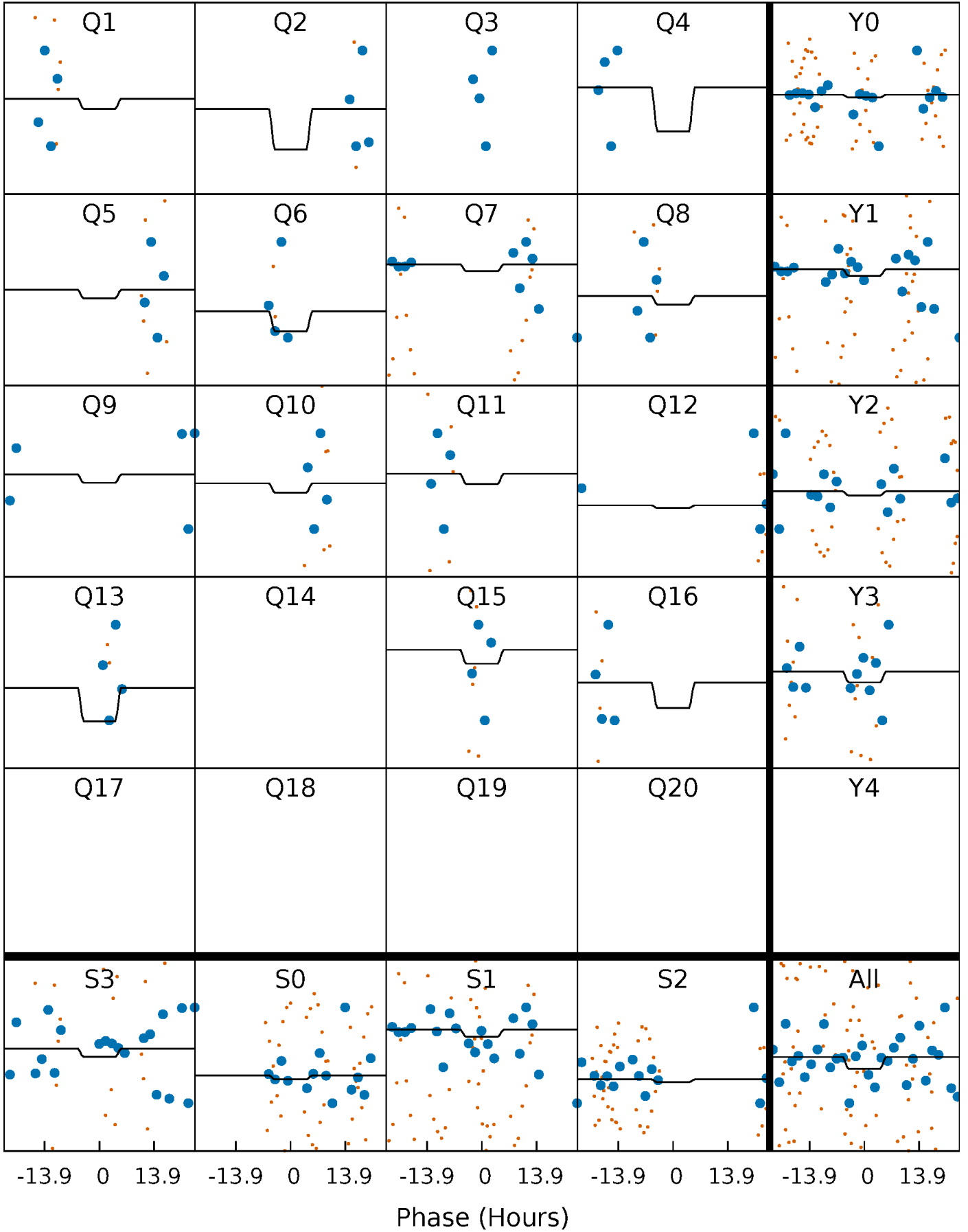
DV Quarter-Phased Transit Curves

TCE 006947064-05 $P = 82.263943$ Days $T_0 = 138.604381$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

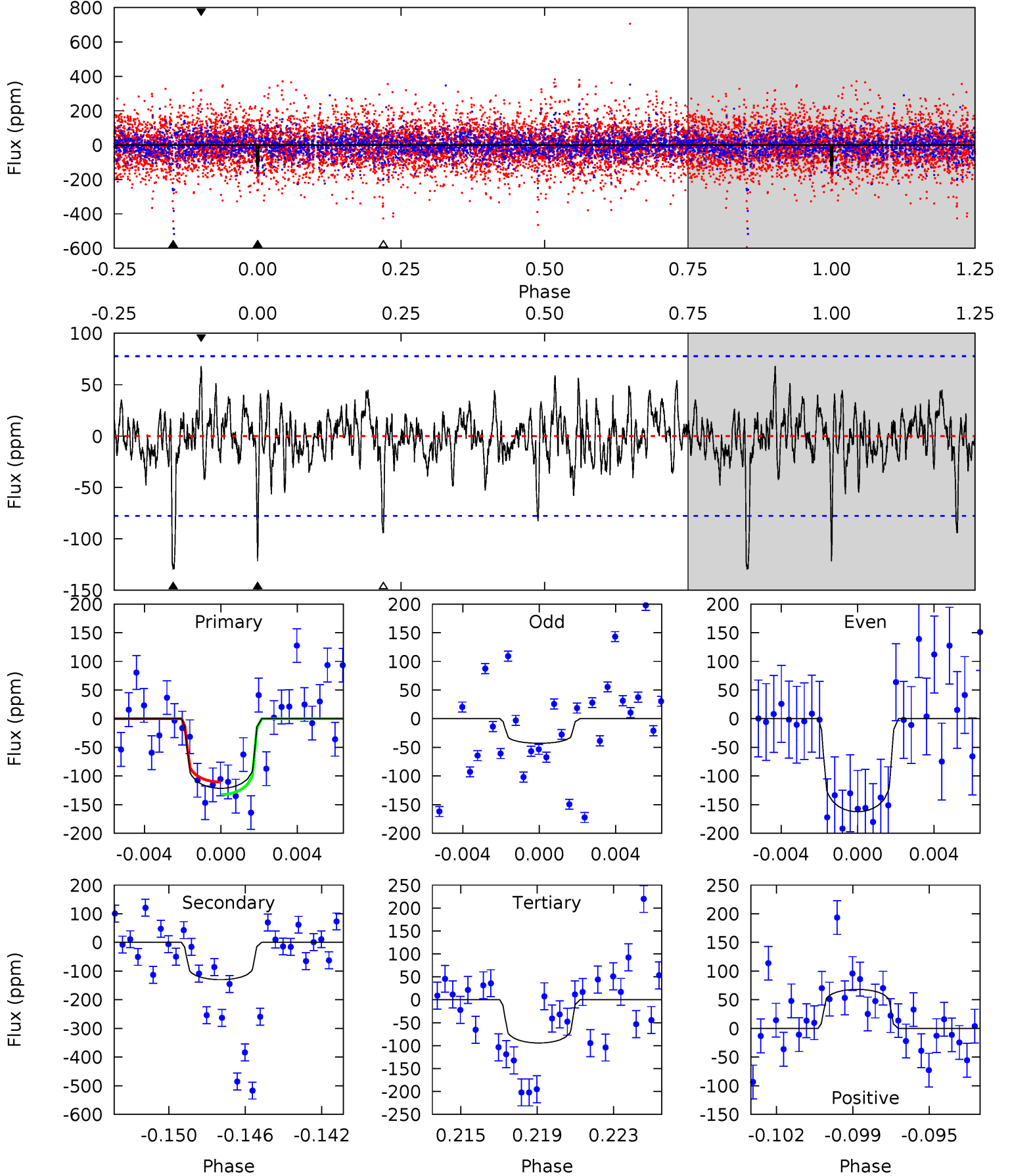
TCE 006947064-05 P= 82.264862 Days $T_0=138.587834$ (BKJD)



DV Model-Shift Uniqueness Test

006947064-05, P = 82.263943 Days, E = 56.340438 Days

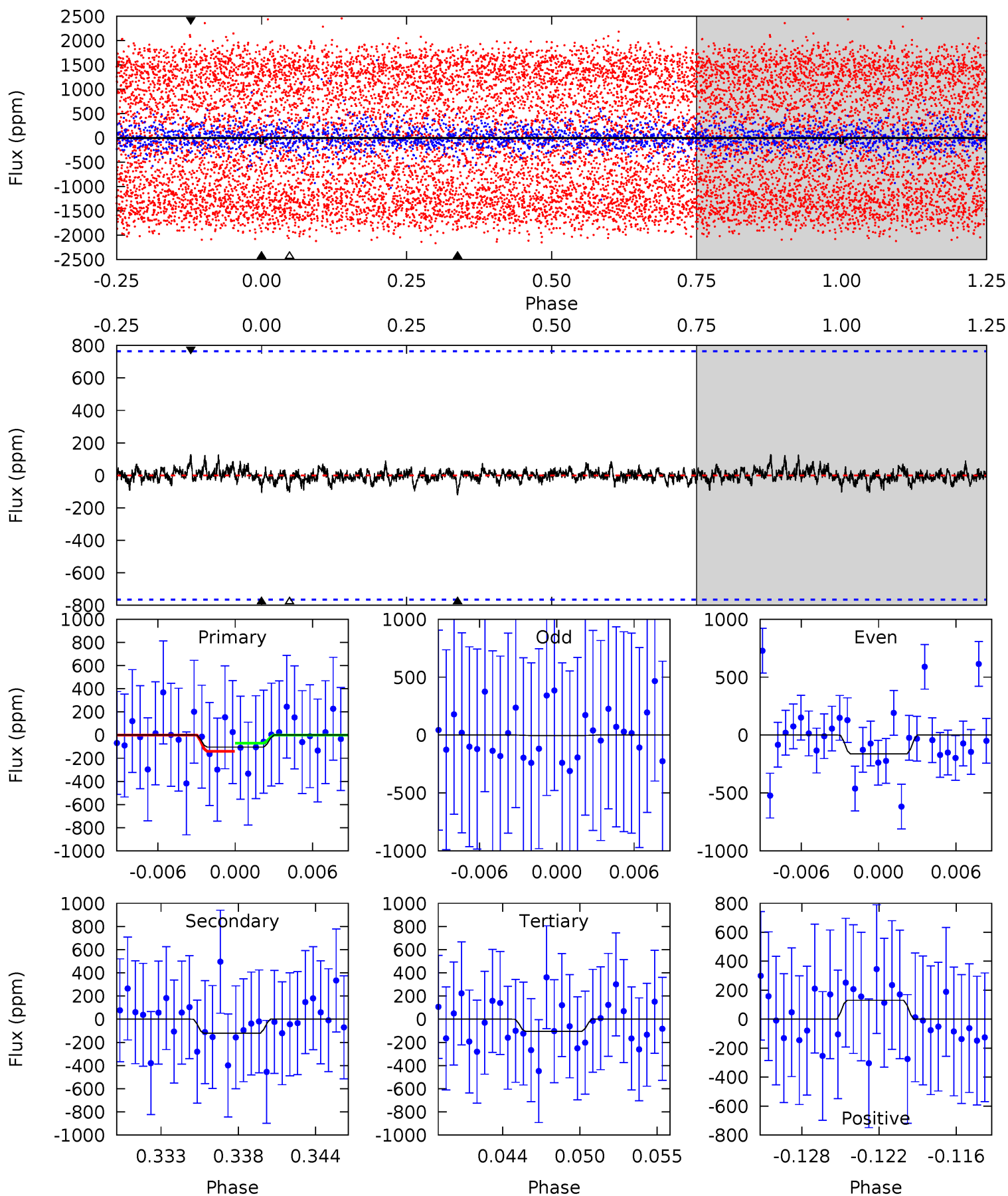
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.17	8.72	6.33	4.57	5.22	2.91	1.35	1.83	3.60	2.38	4.15	3.94	1.02	0.34	0.75



Alt Model-Shift Uniqueness Test

006947064-05, P = 82.264862 Days, E = 56.322972 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.70	0.82	0.71	0.87	5.14	2.77	0.19	-0.01	-0.17	0.11	-0.06	0.53	2.39	0.52	0.24



Stellar Parameters For KIC 006947064

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8392^{+231}_{-363}	$3.919^{+0.240}_{-0.140}$	$0.070^{+0.250}_{-0.500}$	$2.664^{+0.726}_{-0.968}$	$2.149^{+0.306}_{-0.524}$	$0.160^{+0.277}_{-0.067}$
	+3%/-4%	+6%/-4%	+357%/-714%	+27%/-36%	+14%/-24%	+173%/-42%
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 006947064-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-130 ± 15	$3.78^{+2.78}_{-2.19}$	1202^{+87}_{-106}	7373^{+7138}_{-1742}	1117^{+5191}_{-751}
Alt.	-122 ± 149	$3.20^{+2.50}_{-1.98}$	1207^{+91}_{-100}	7508^{+8599}_{-12303}	1075^{+7328}_{-1253}

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

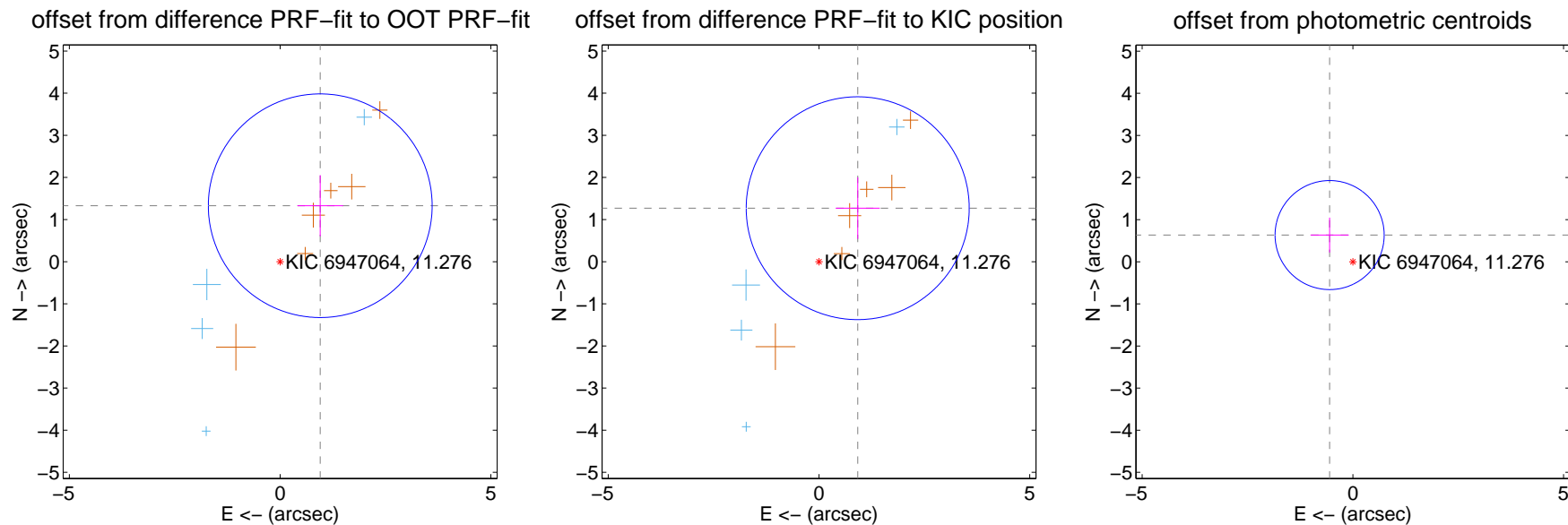
DV Centroid Data

Supplemental centroid analysis for 006947064-05. **Kepler magnitude: 11.28.** Transit SNR 12.78

There are 4 quarters with good PRF difference image offsets

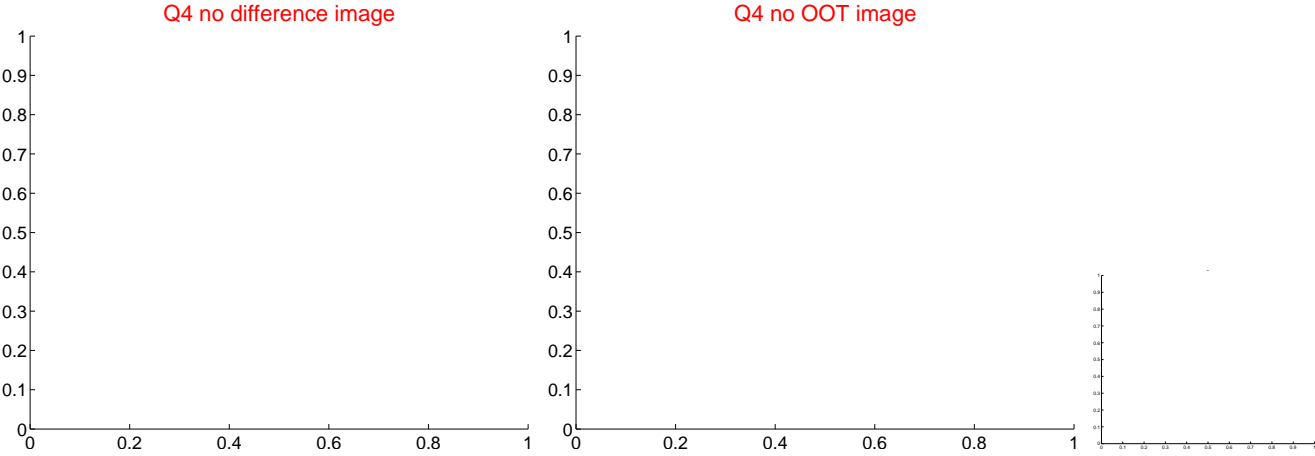
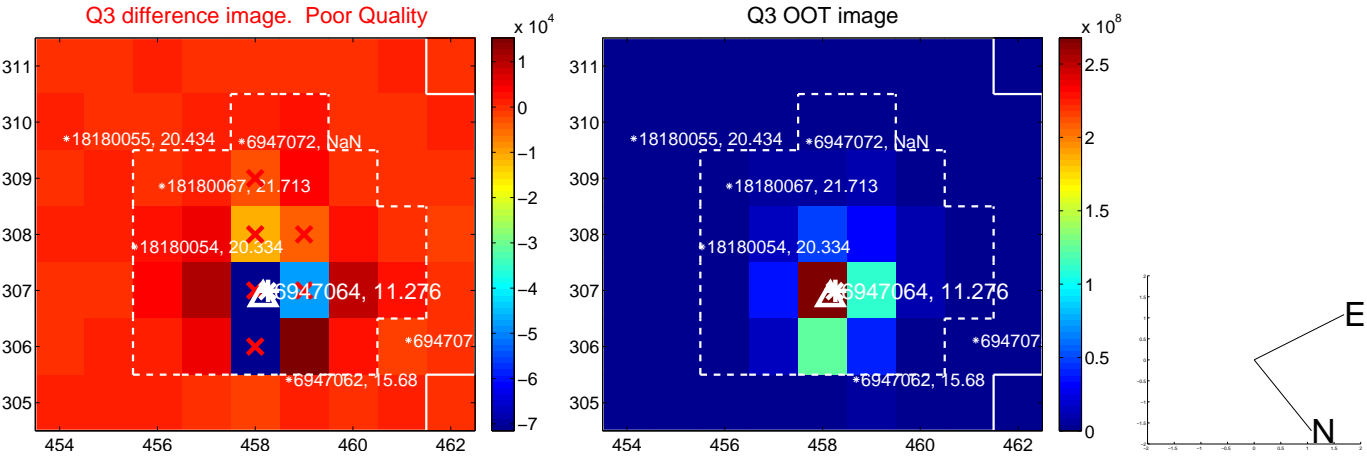
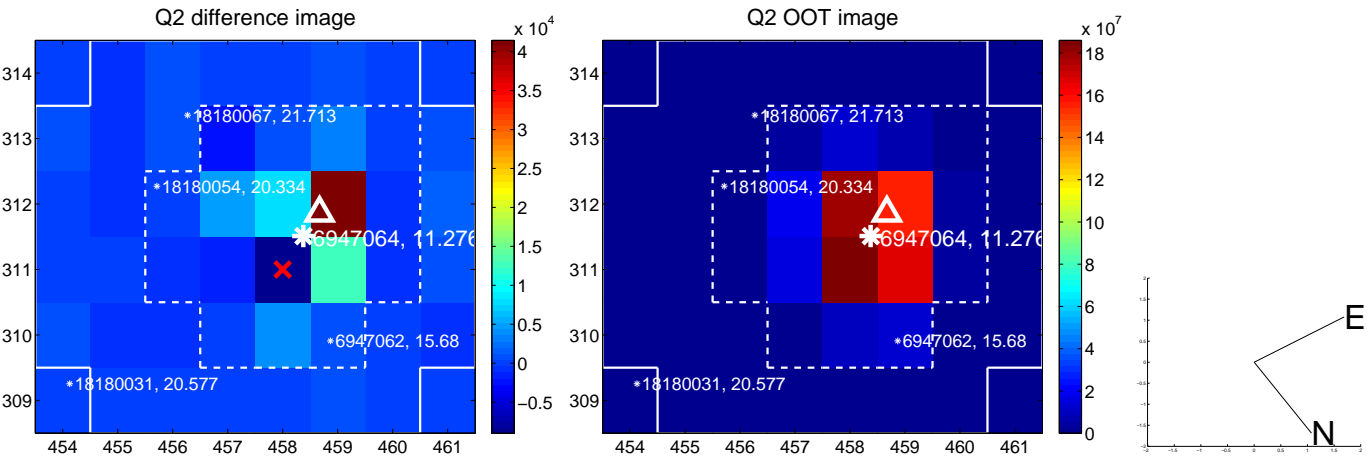
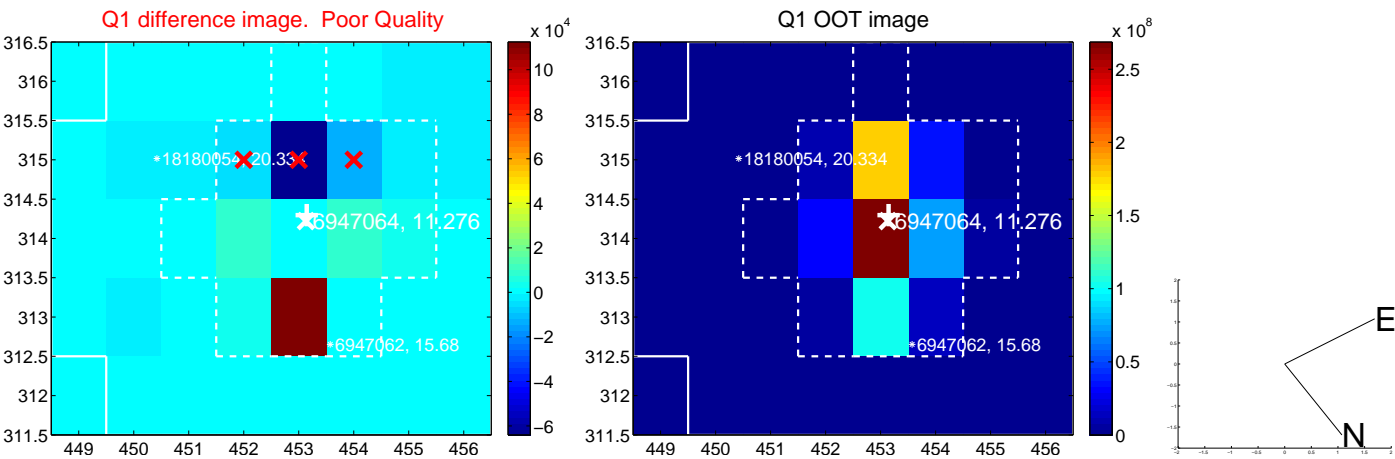
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.634 ± 0.885	1.85	-0.952 ± 0.541	1.329 ± 0.726
PRF-fit source offset from KIC position	1.567 ± 0.882	1.78	-0.919 ± 0.522	1.270 ± 0.731
photometric centroid source offset	0.84 ± 0.43	1.95	0.55 ± 0.45	0.63 ± 0.41

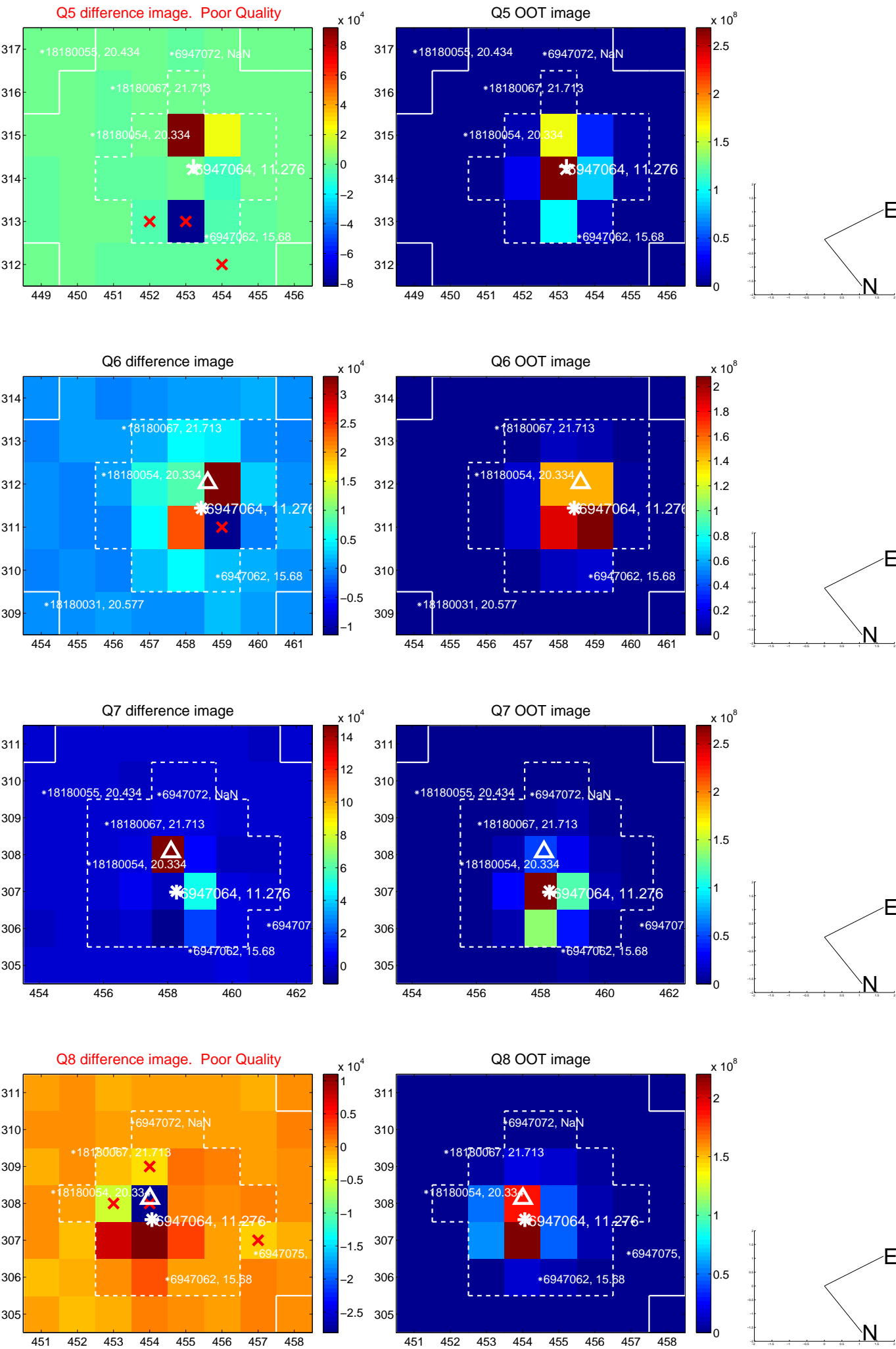


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

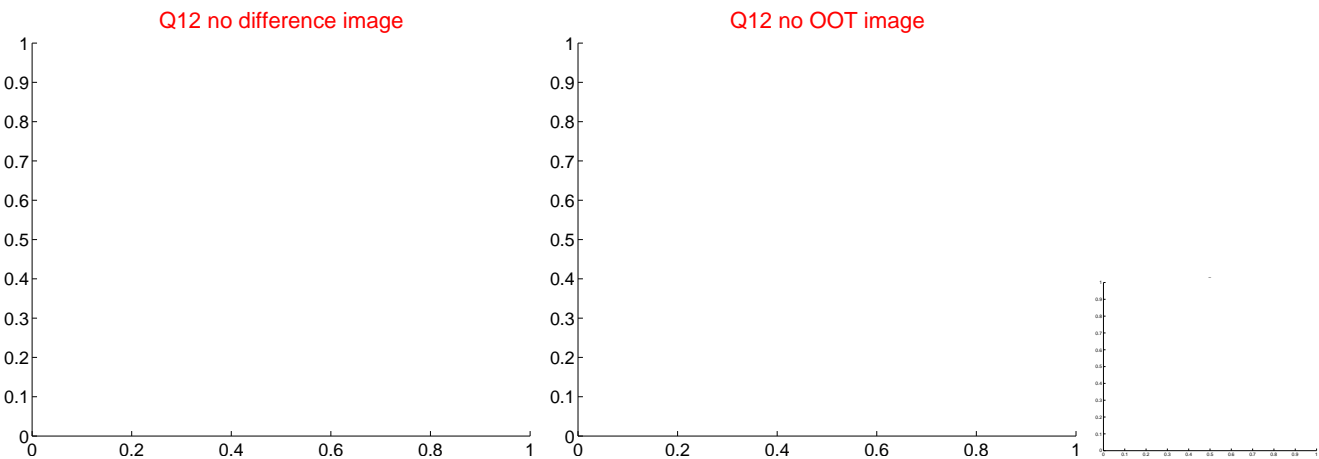
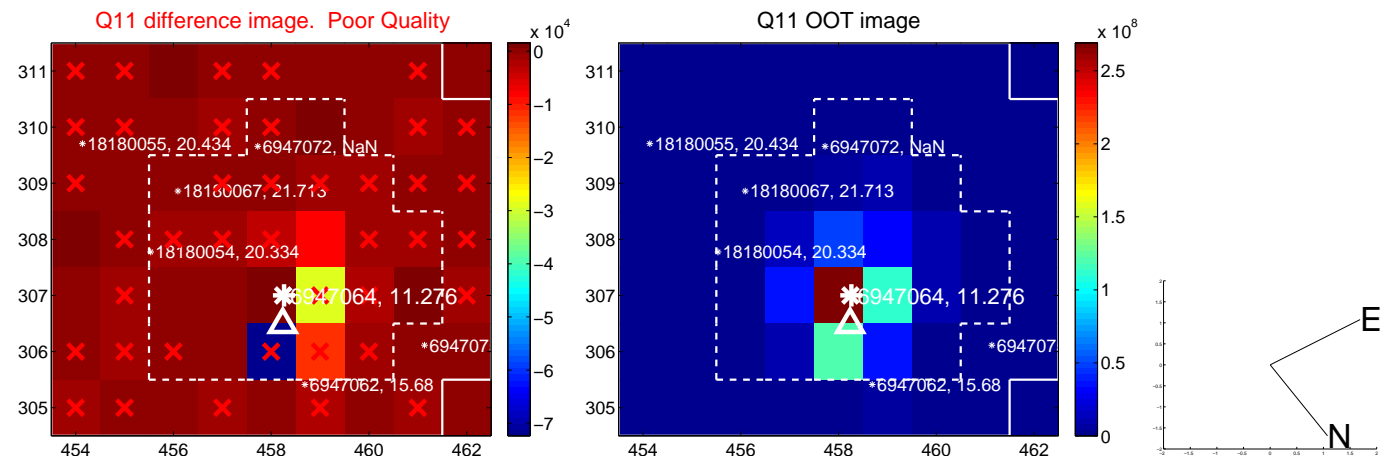
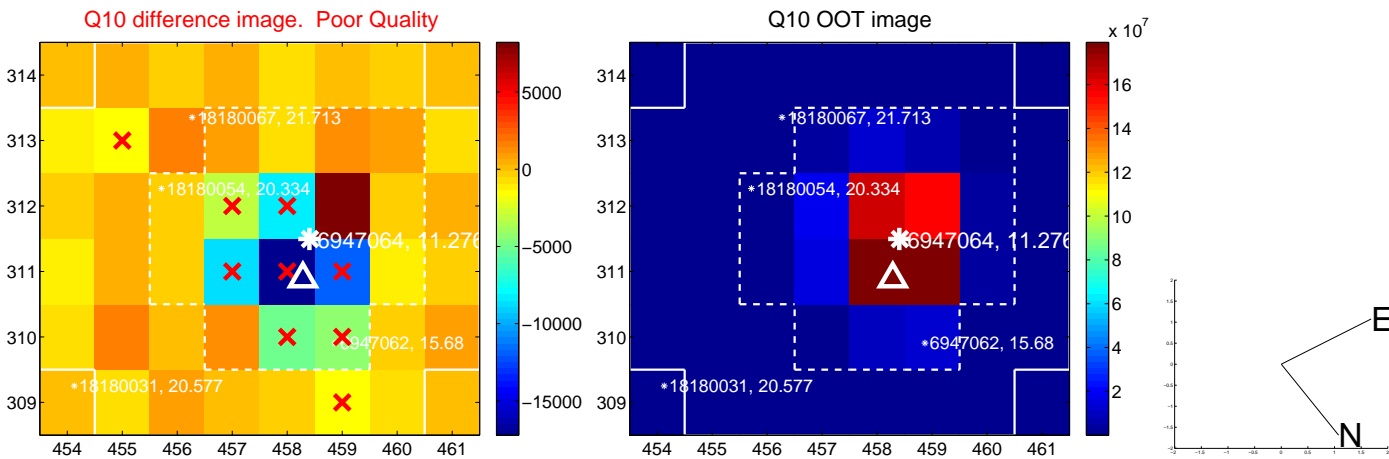
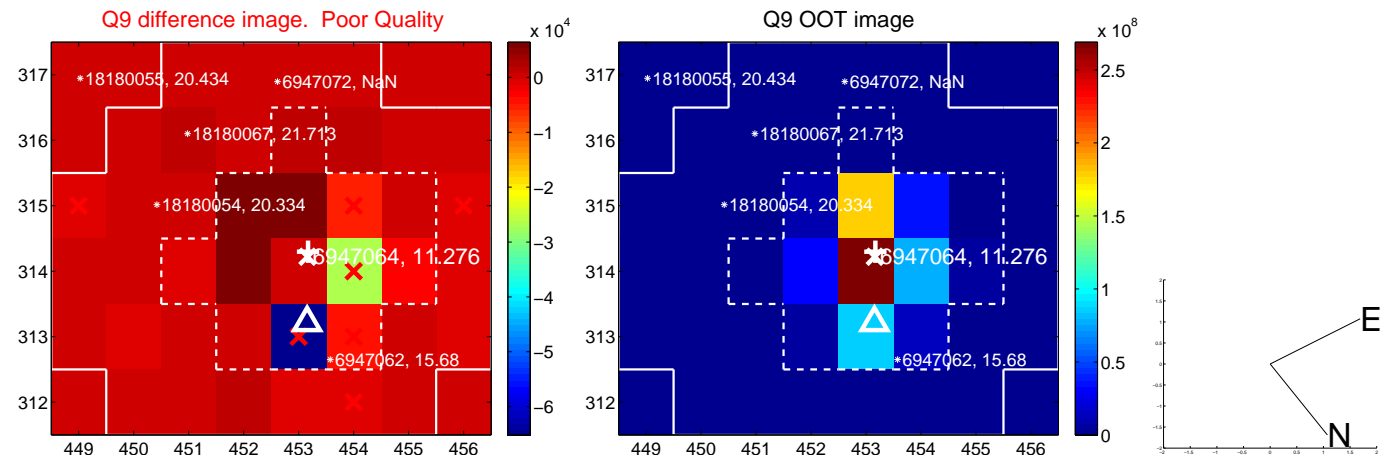
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



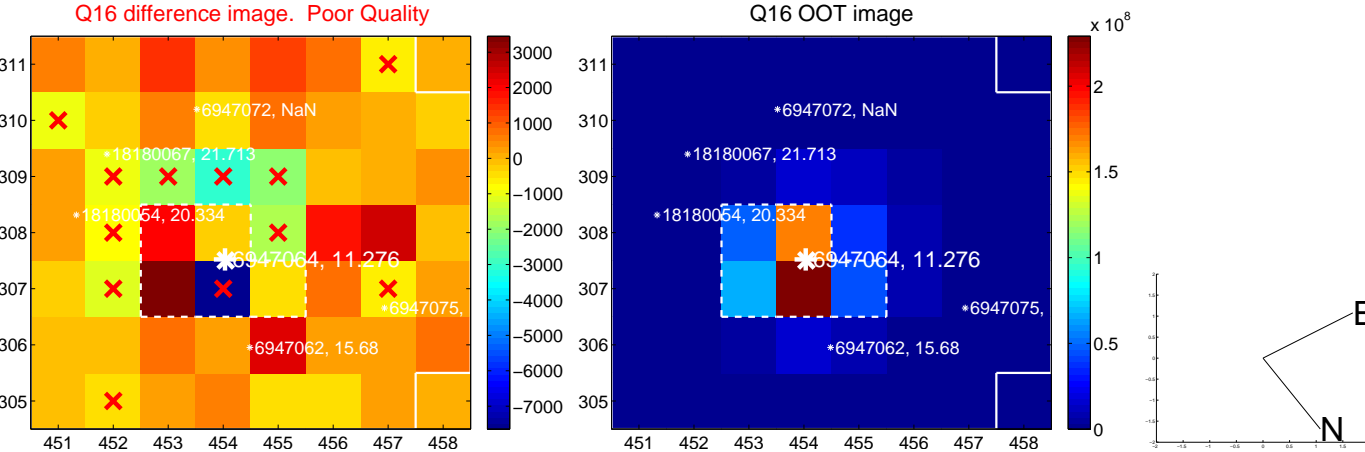
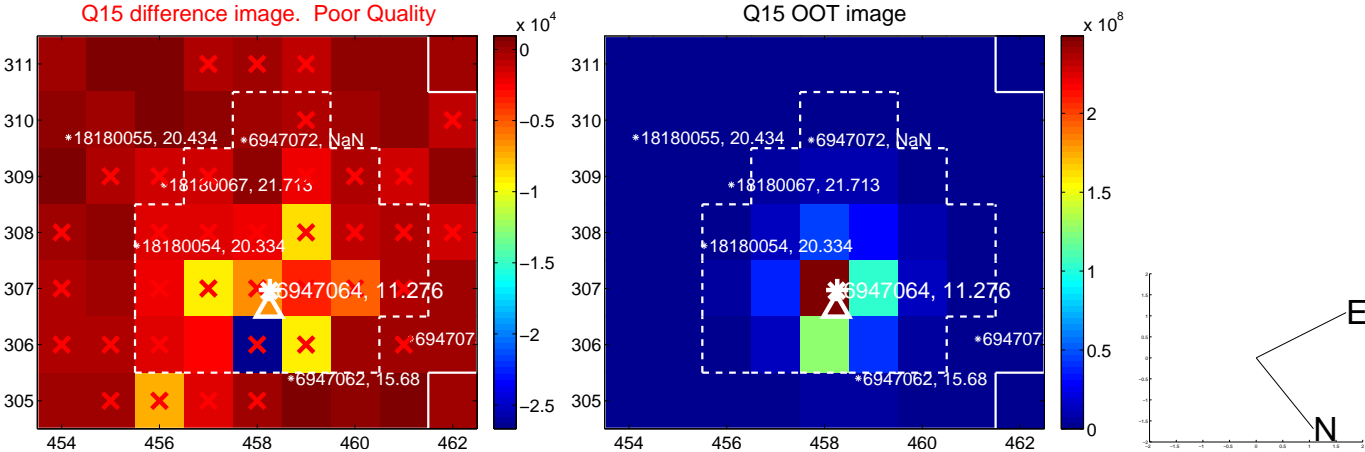
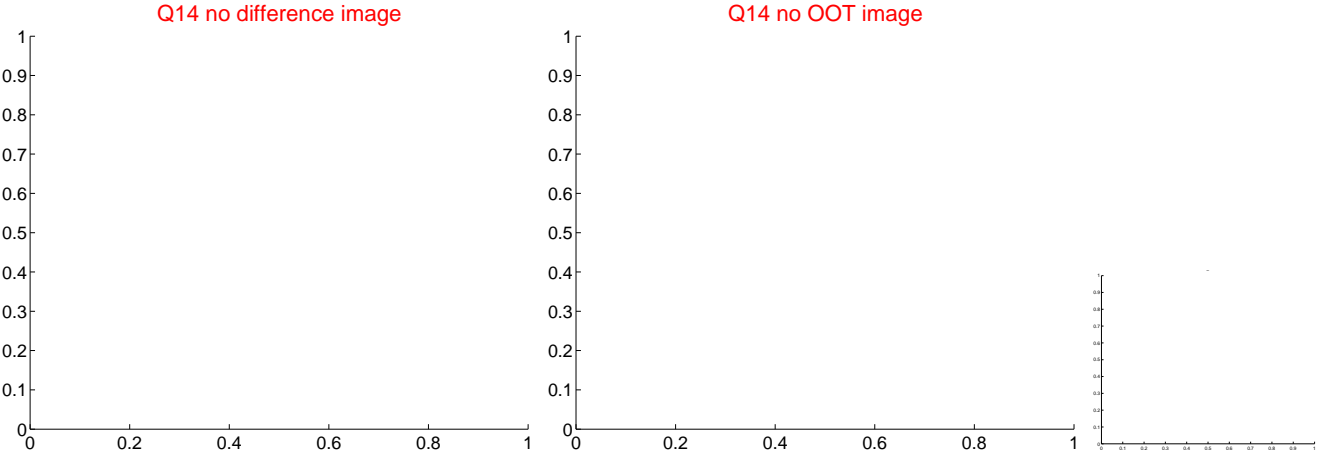
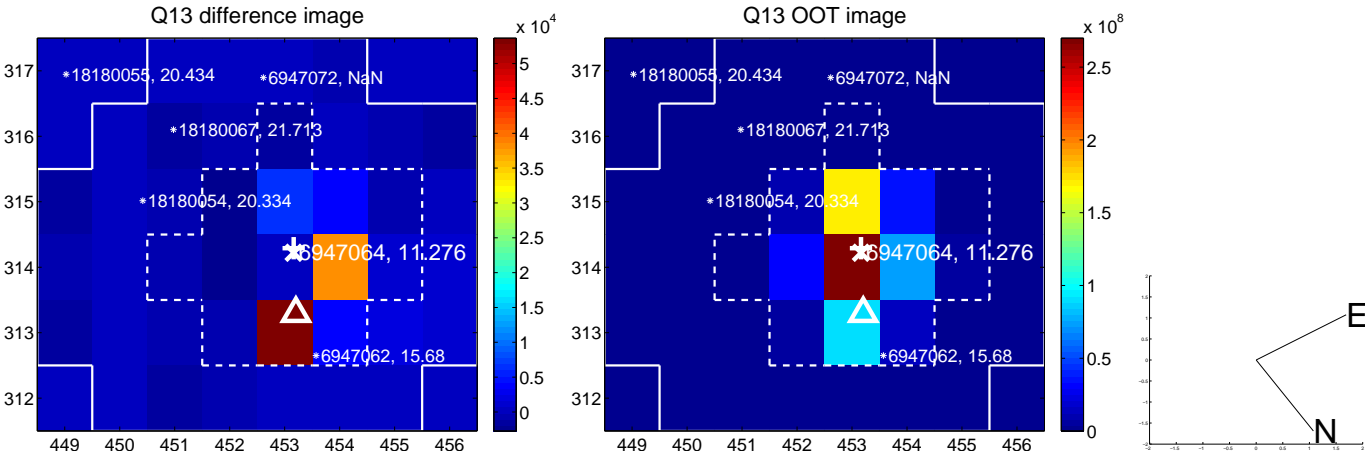
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



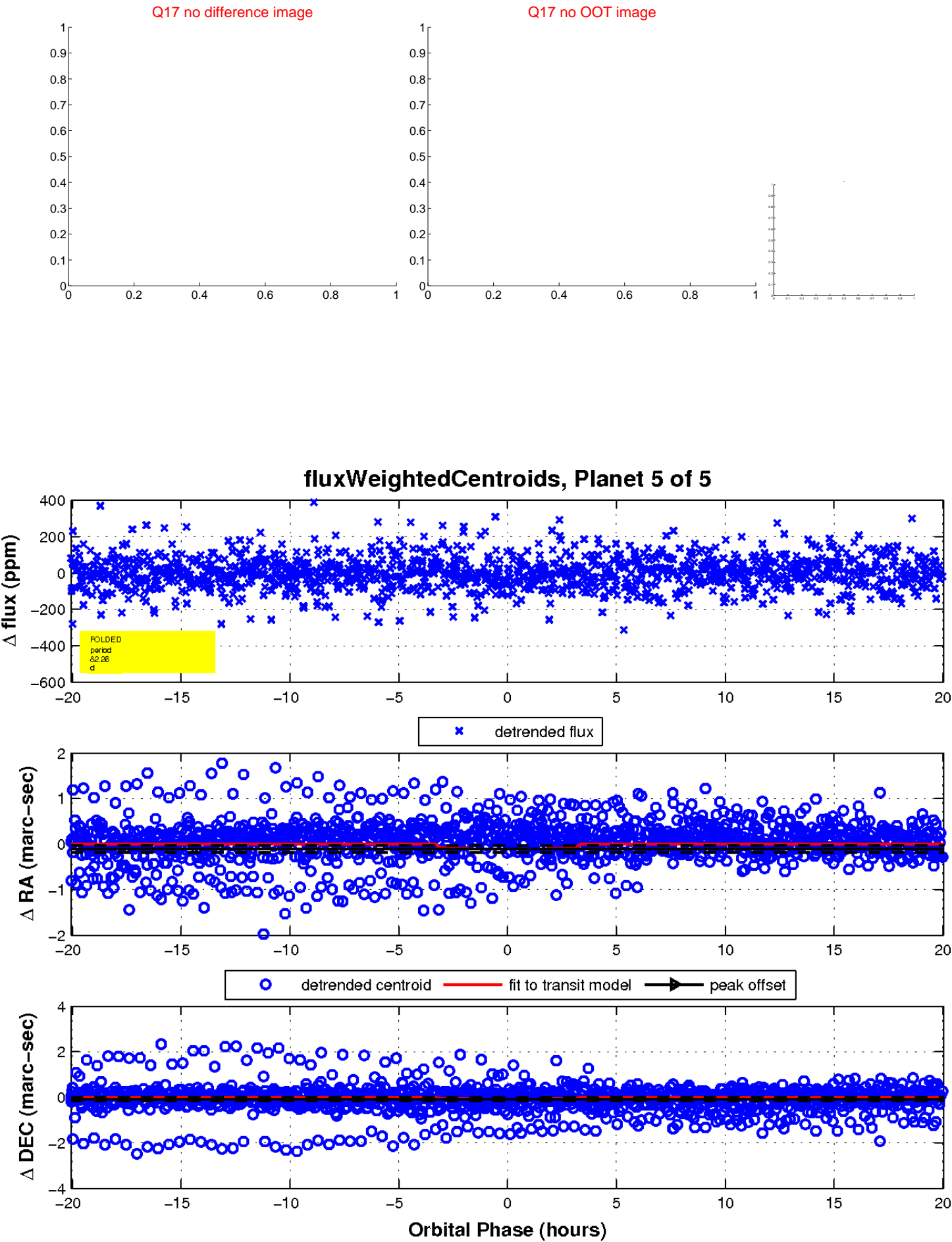
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

