

KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
007620801-02	OBS	No	101.930288	194.044319	28.8	1.497	11.3	7.3	67.95	3839	34.08	3272.13
007620801-03	OBS	No	312.431315	211.107481	26.5	3.154	10.2	10.6	67.95	3839	44.21	734.90
007620801-04	OBS	No	155.036231	282.950918	49.2	15.000	7.9	-1.0	67.95	3839	44.28	1870.64
007620801-05	OBS	No	248.853873	221.614121	22.9	5.791	8.7	9.2	67.95	3839	41.25	995.35
007620801-06	OBS	No	423.961891	289.227453	29.7	14.963	8.3	6.6	67.95	3839	44.79	489.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

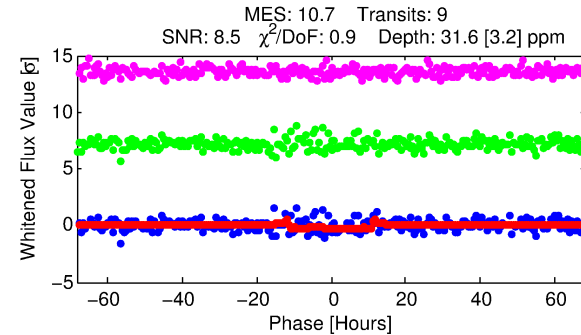
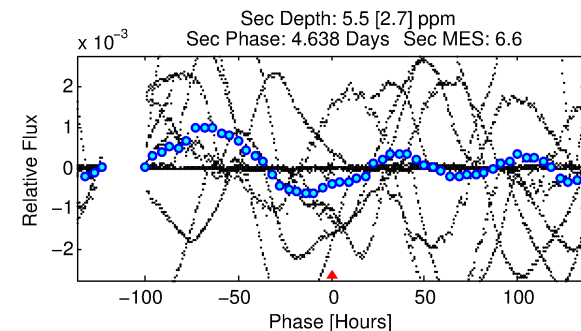
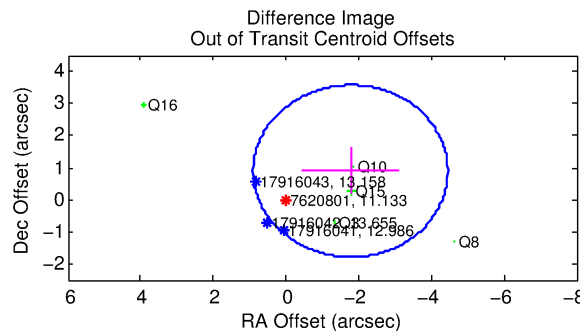
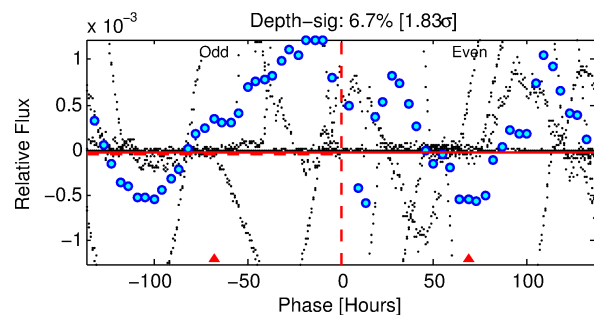
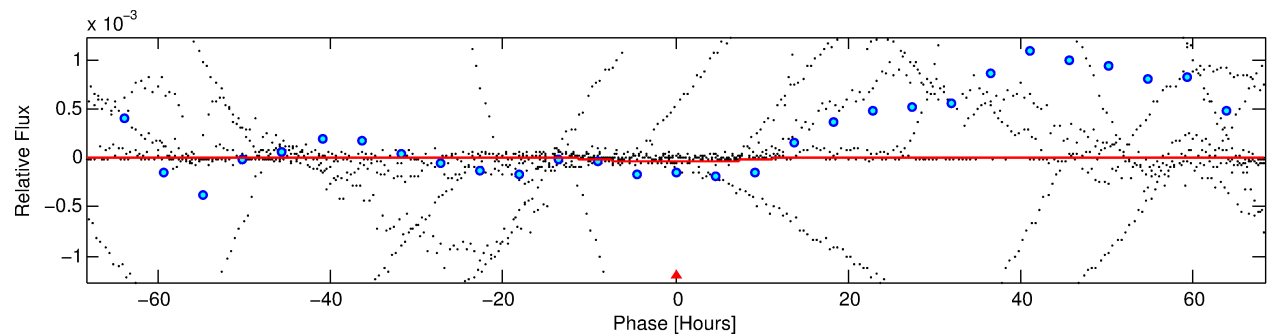
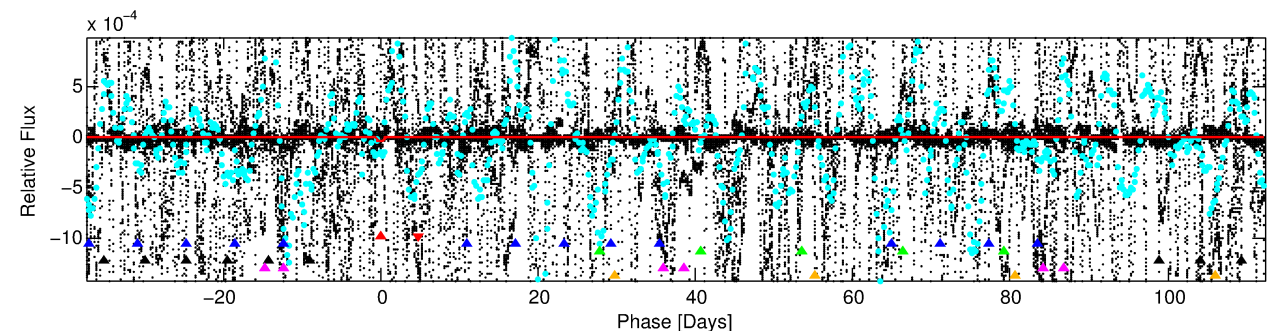
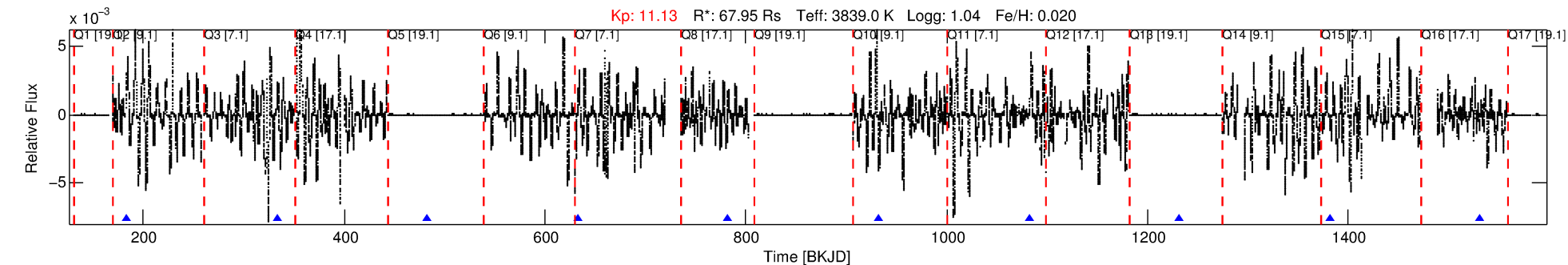
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-01

No Significant Match Found

DV One-Page Summary

KIC: 7620801 Candidate: 1 of 6 Period: 149.810 d



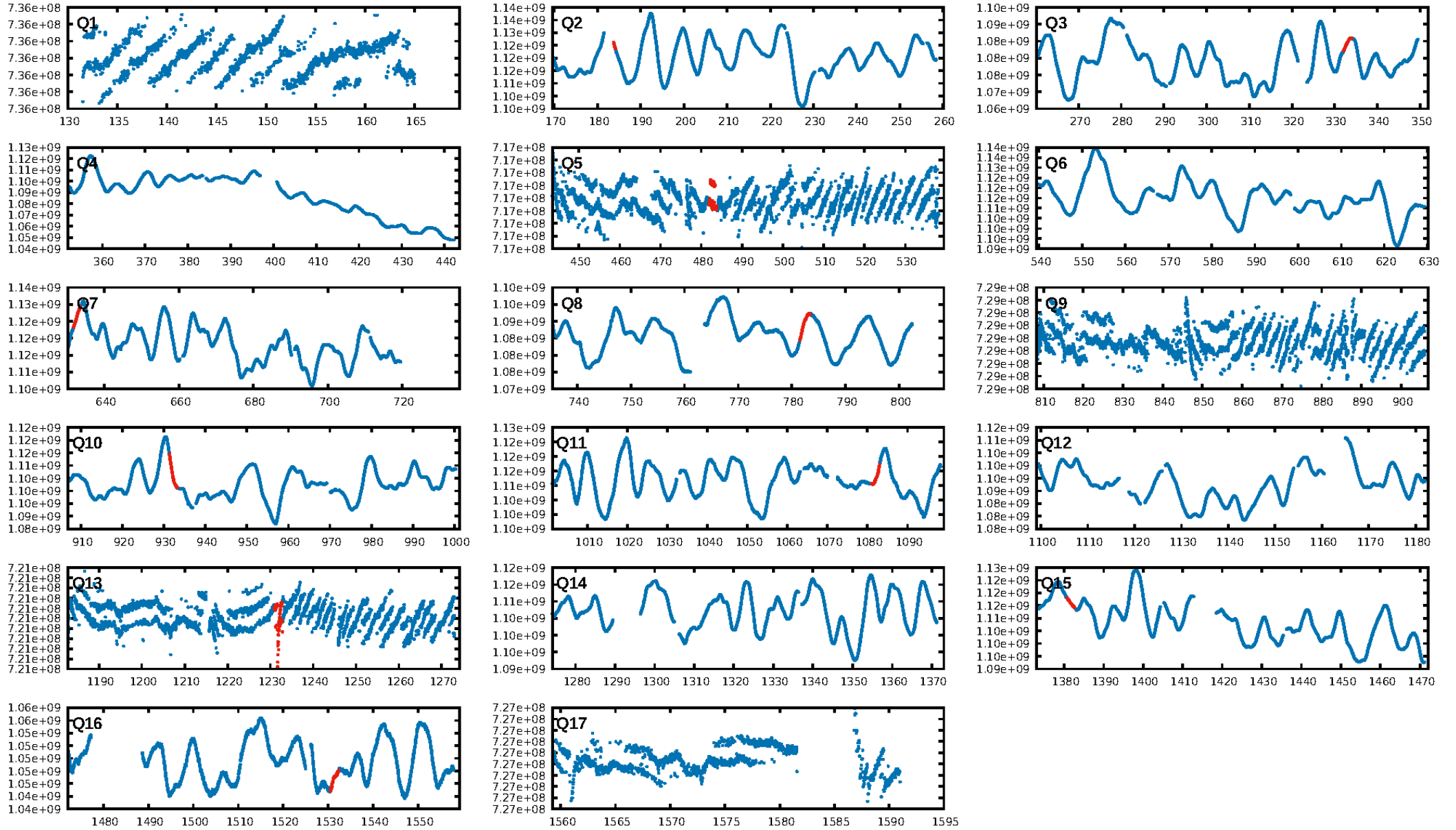
DV Fit Results:

Period = 149.80965 [0.00174] d
Epoch = 183.1972 [0.0081] BKJD
Rp/R* = 0.0051 [0.0008]
a/R* = 43.52 [16.12]
b = 0.51 [0.54]
Seff = 1958.16 [365.43]
Teff = 1696 [79] K
Rp = 37.83 [10.06] Re
a = 0.6774 [0.0988] AU
Ag = 0.97 [0.58] [-0.05 σ]
Teffp = 2602 [381] K [2.33 σ]

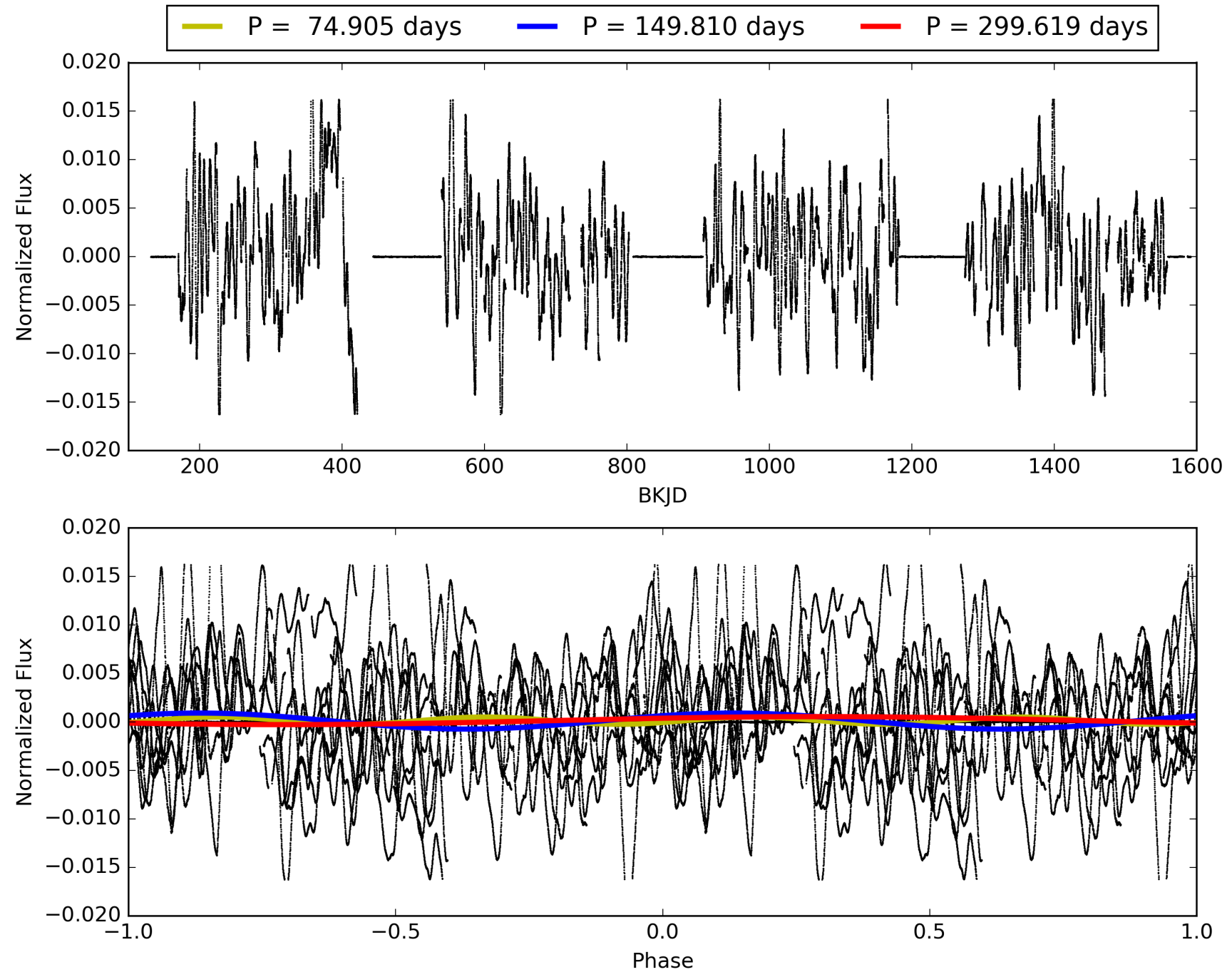
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.38 σ]
LongPeriod-sig: 100.0% [4.60 σ]
ModelChiSquare2-sig: 35.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.36e-10
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.6561
Centroid-sig: 3.8%
Centroid-so: 10.889 arcsec [1.31 σ]
OotOffset-rm: 1.985 arcsec [2.22 σ]
OotOffset-st: 1/2/2/0 [5]
KicOffset-rm: 3.790 arcsec [3.16 σ]
KicOffset-st: 1/2/2/0 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 1.00 [6/6]

TCE 007620801-01, PDC Light Curves

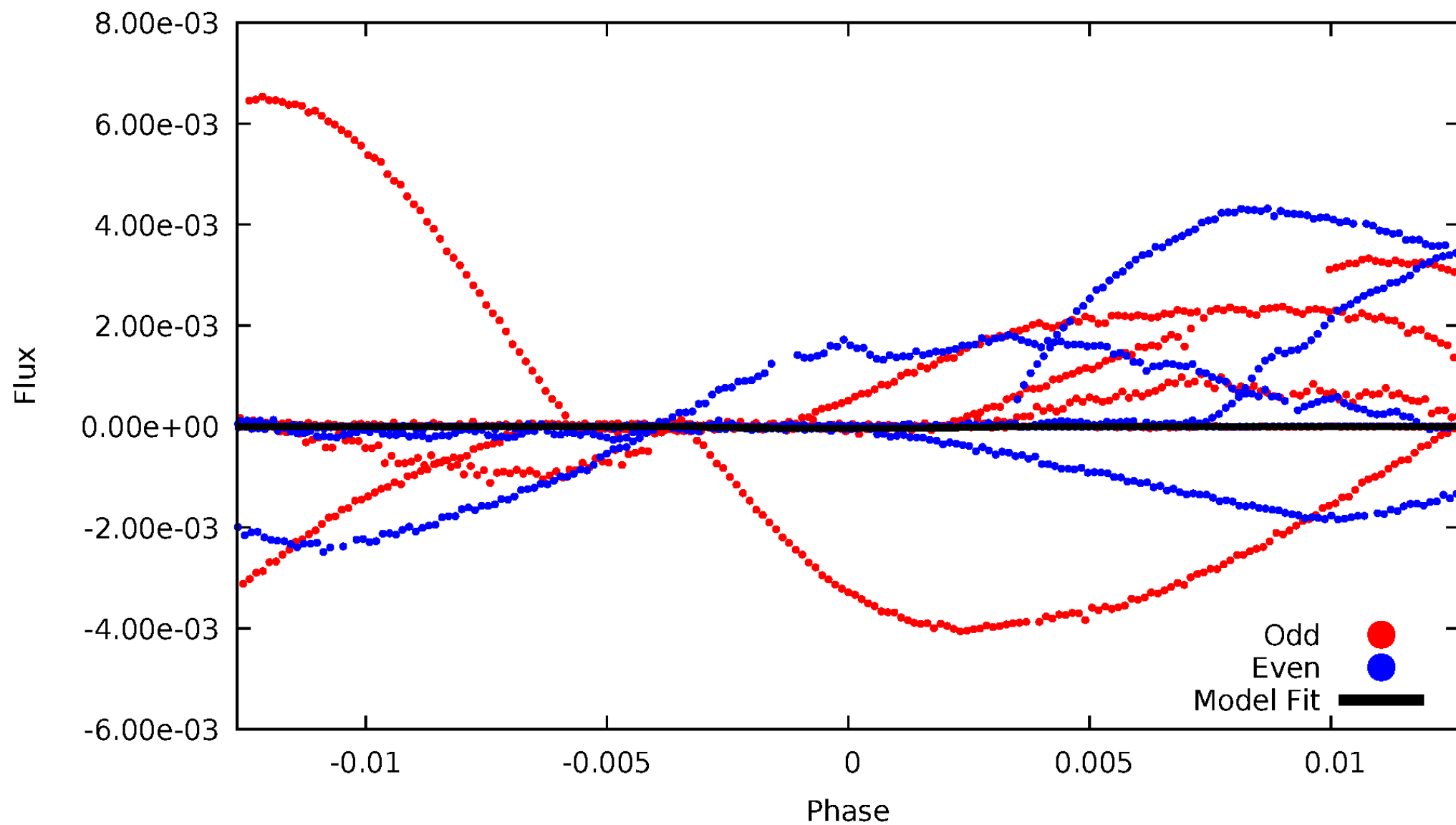


TCE 007620801-01



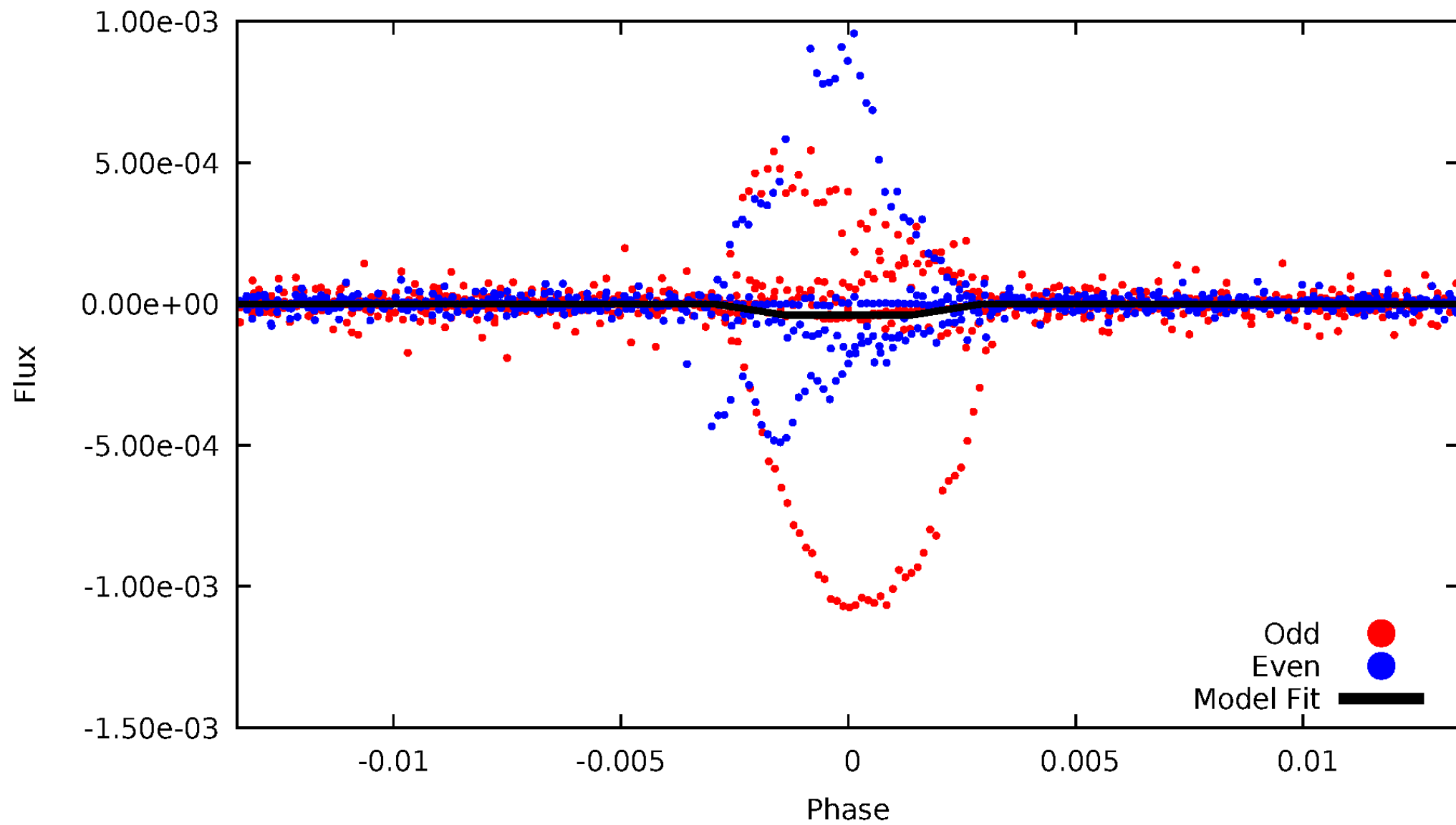
DV Odd/Even

TCE 007620801-01

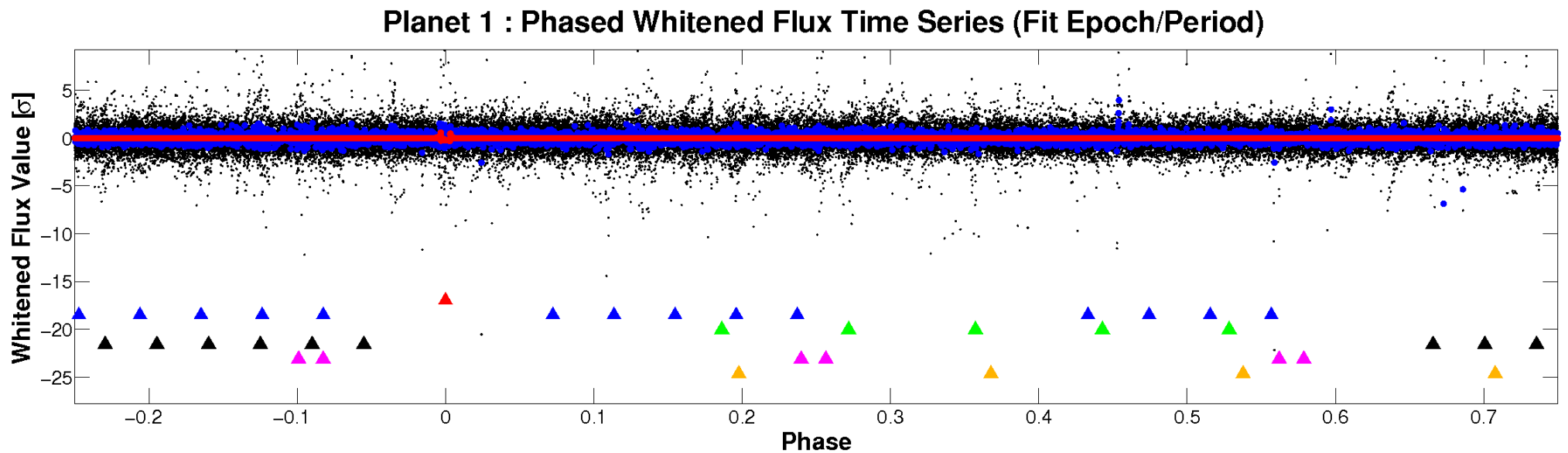
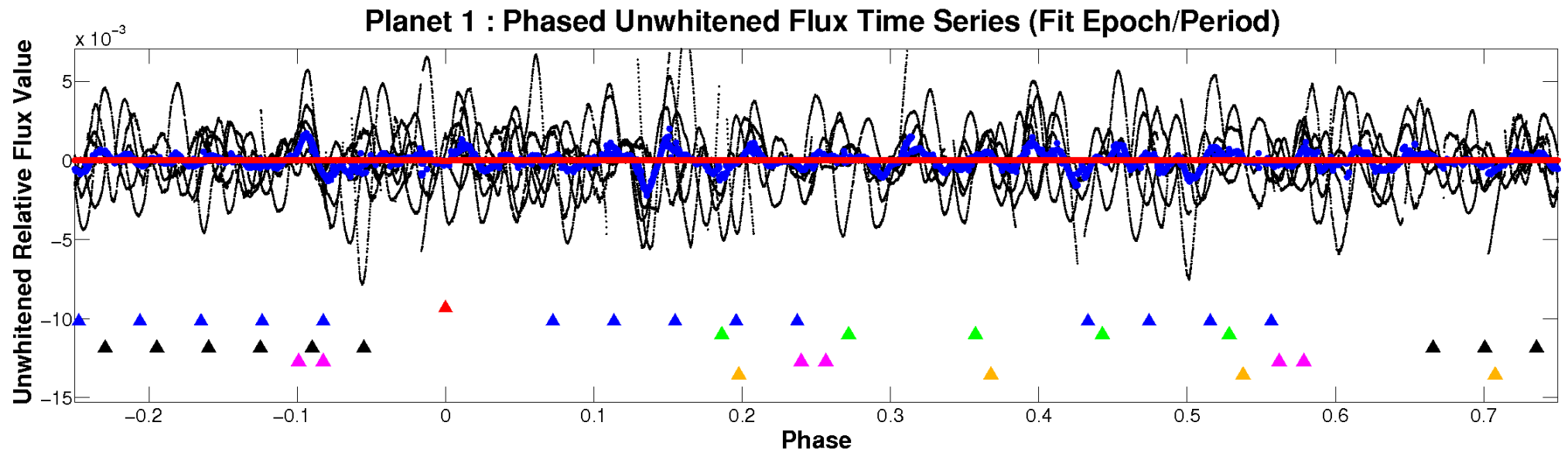


ALT Odd/Even

TCE 007620801-01

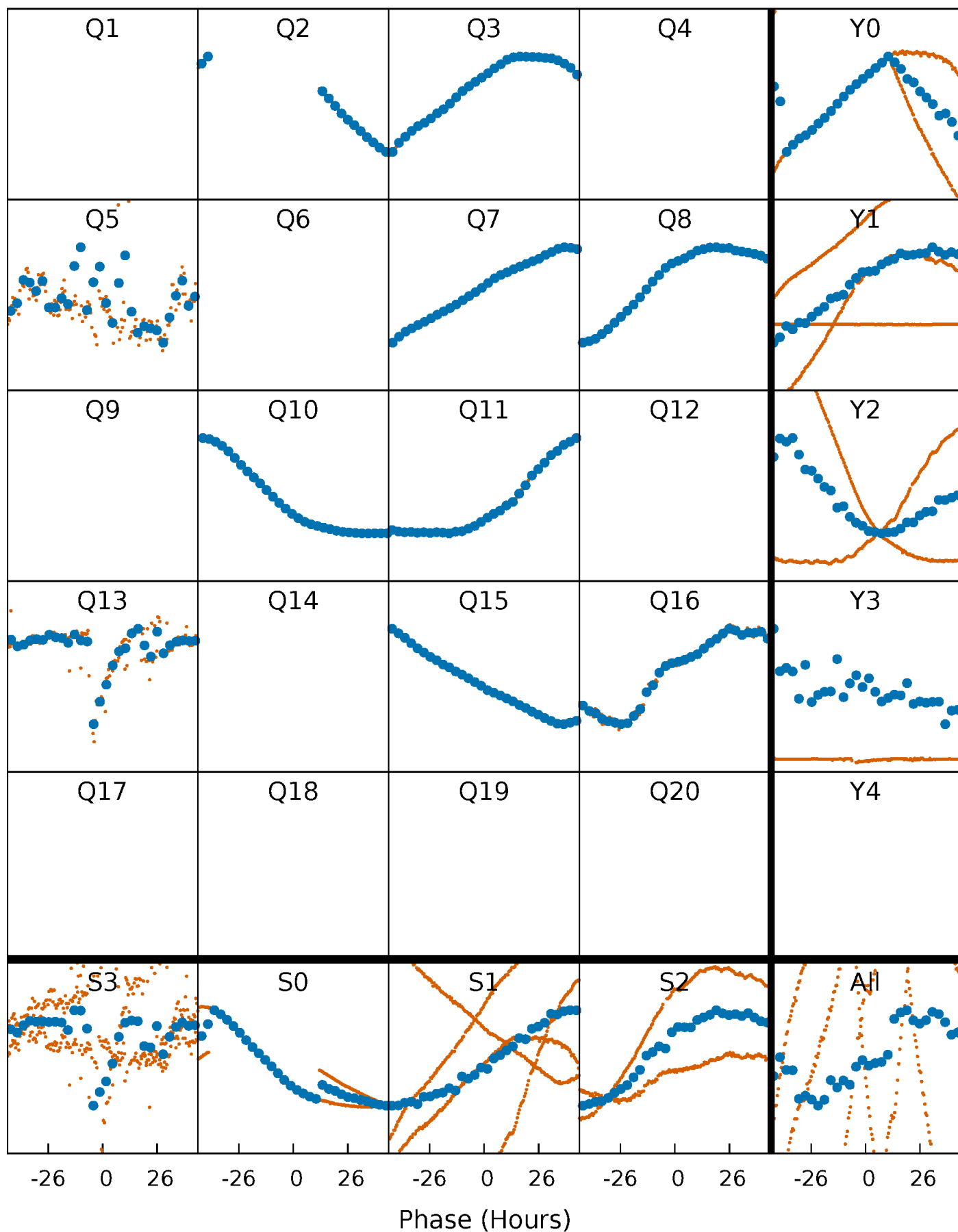


Non-Whitened Vs. Whitened Light Curve



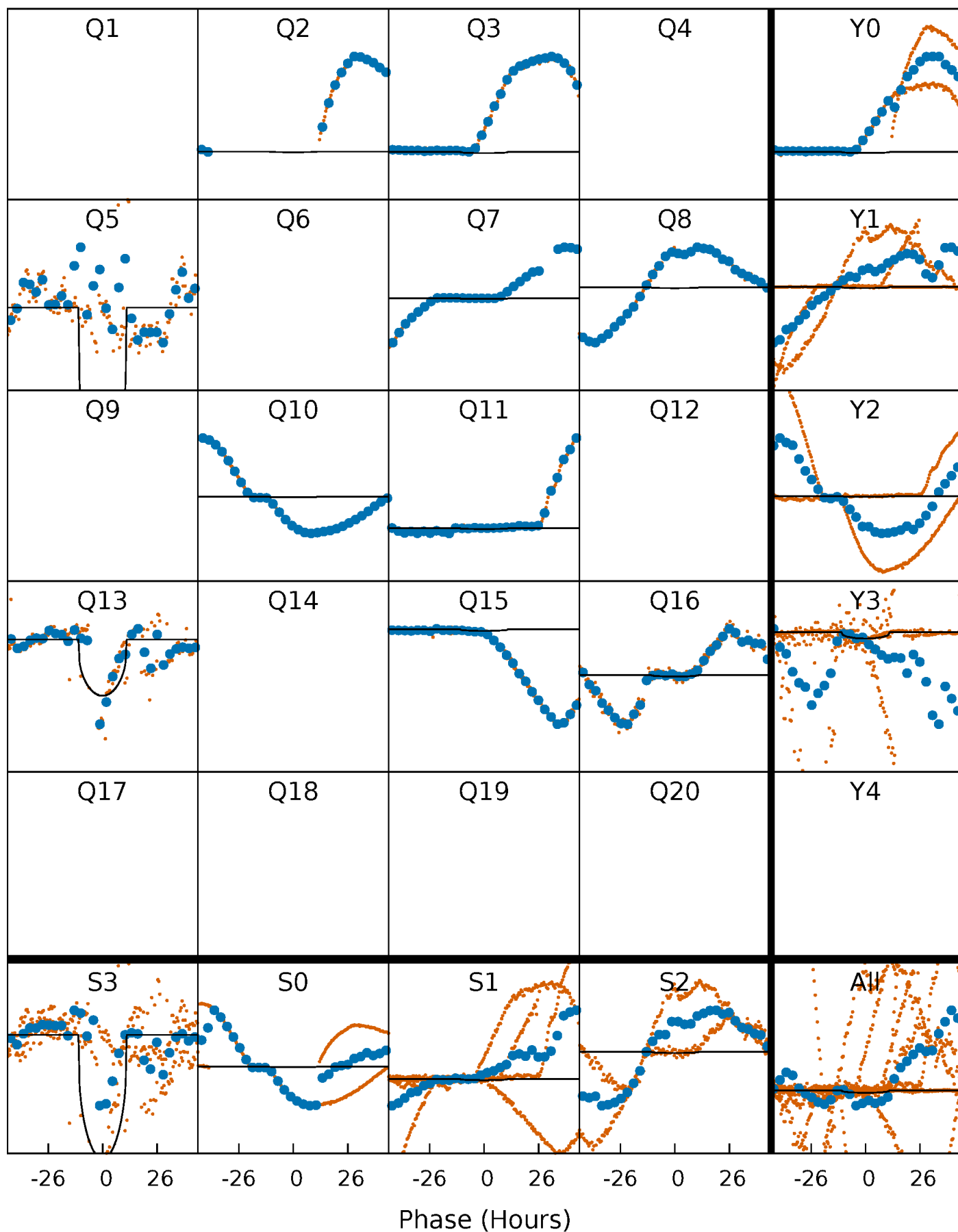
PDC Quarter-Phased Transit Curves

TCE 007620801-01 P=149.809648 Days $T_0=183.197186$ (BKJD)



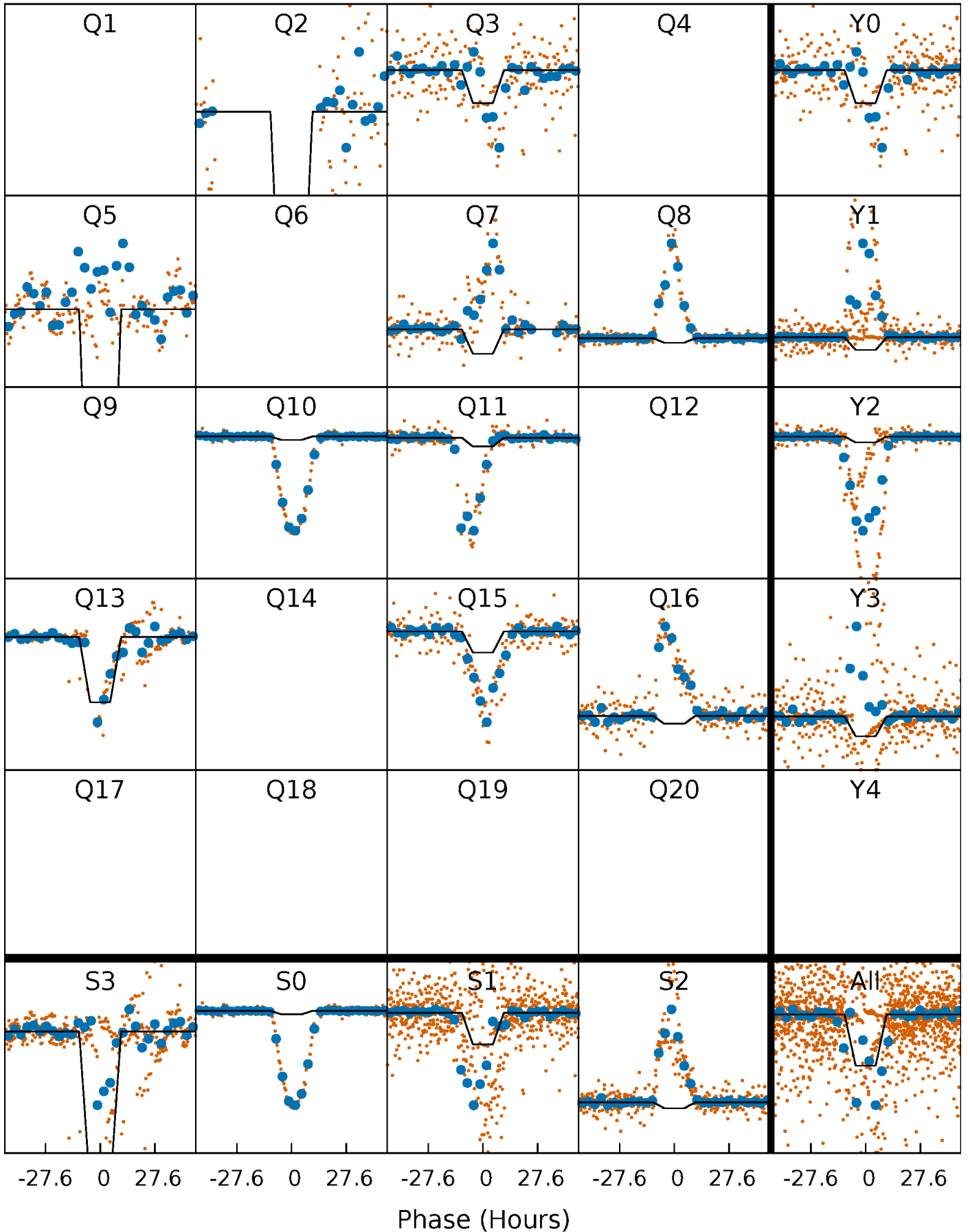
DV Quarter-Phased Transit Curves

TCE 007620801-01 P=149.809648 Days $T_0=183.197186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

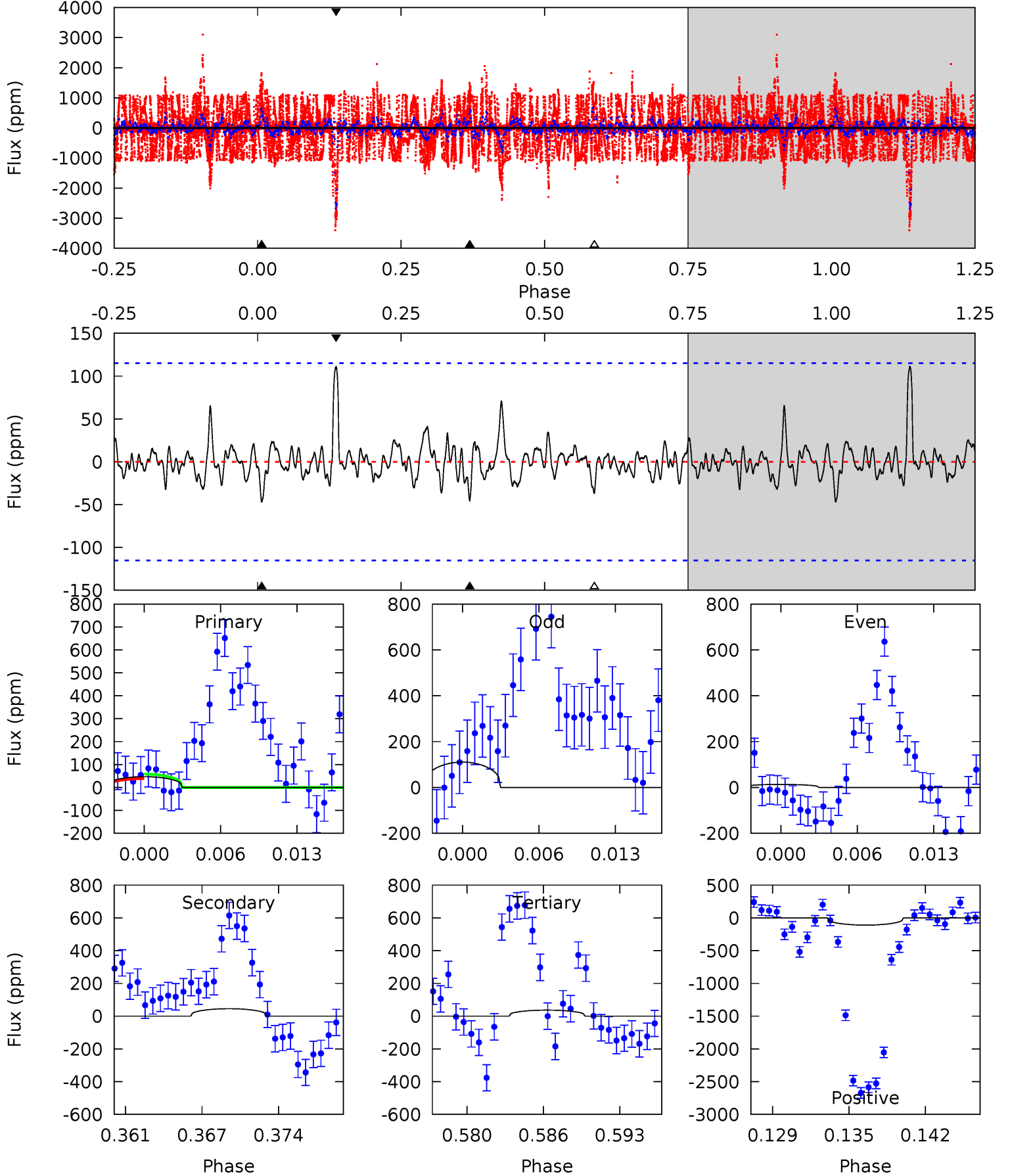
TCE 007620801-01 P=149.818862 Days $T_0=183.127325$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-01, $P = 149.809648$ Days, $E = 33.387538$ Days

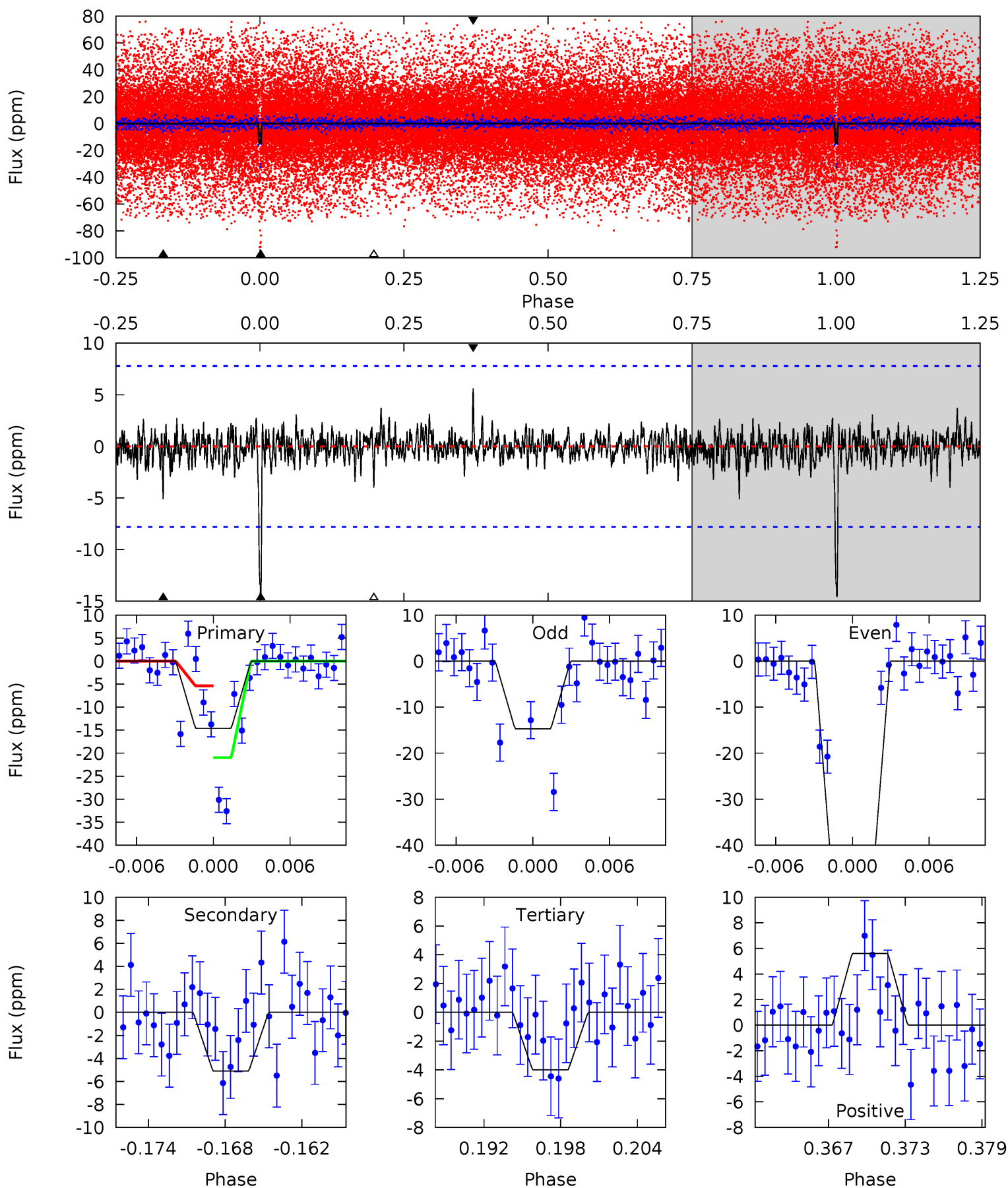
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.08	2.02	1.64	4.93	5.11	2.72	0.75	0.45	-2.84	0.38	-2.91	1.46	-61.7	0.70	0.45



Alt Model-Shift Uniqueness Test

007620801-01, P = 149.818862 Days, E = 33.308463 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.60	3.36	2.63	3.68	5.12	2.75	0.69	6.97	5.92	0.73	-0.33	13.7	1.37	0.28	5.12



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 23	$36.75^{+6.46}_{-6.21}$	2354^{+77}_{-79}	4197^{+440}_{-572}	$8.064^{+5.437}_{-4.329}$
Alt.	-5 ± 2	$45.27^{+6.47}_{-7.36}$	2357^{+68}_{-85}	2581^{+231}_{-317}	$0.610^{+0.279}_{-0.201}$

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 $A_{obs} \gg 1.0$

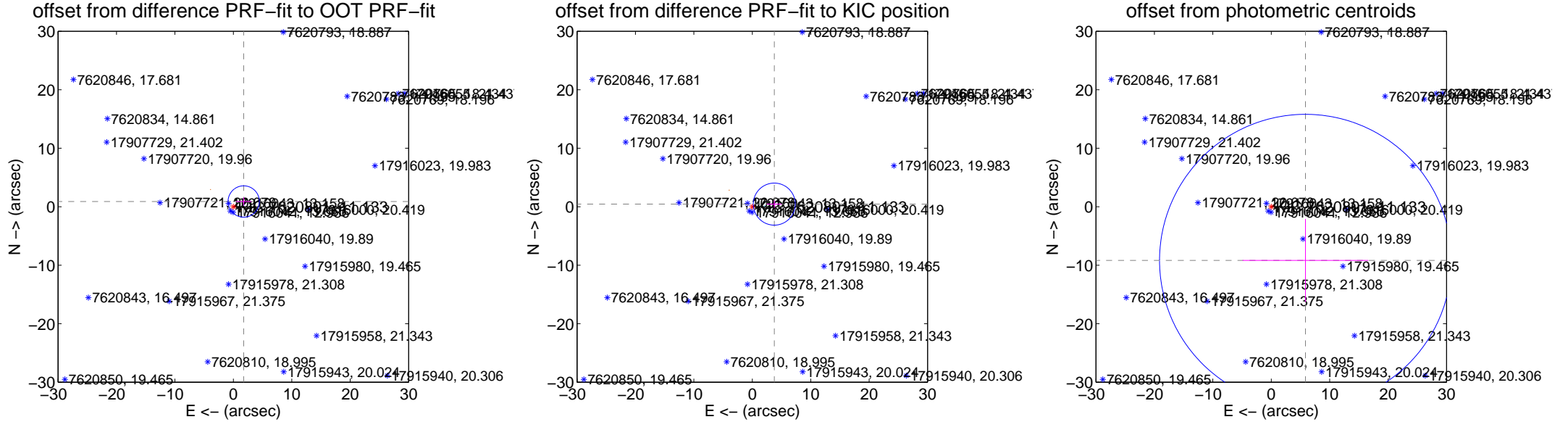
DV Centroid Data

Supplemental centroid analysis for 007620801-01. **Kepler magnitude: 11.13.** Transit SNR 8.53

There are 1 quarters with good PRF difference image offsets

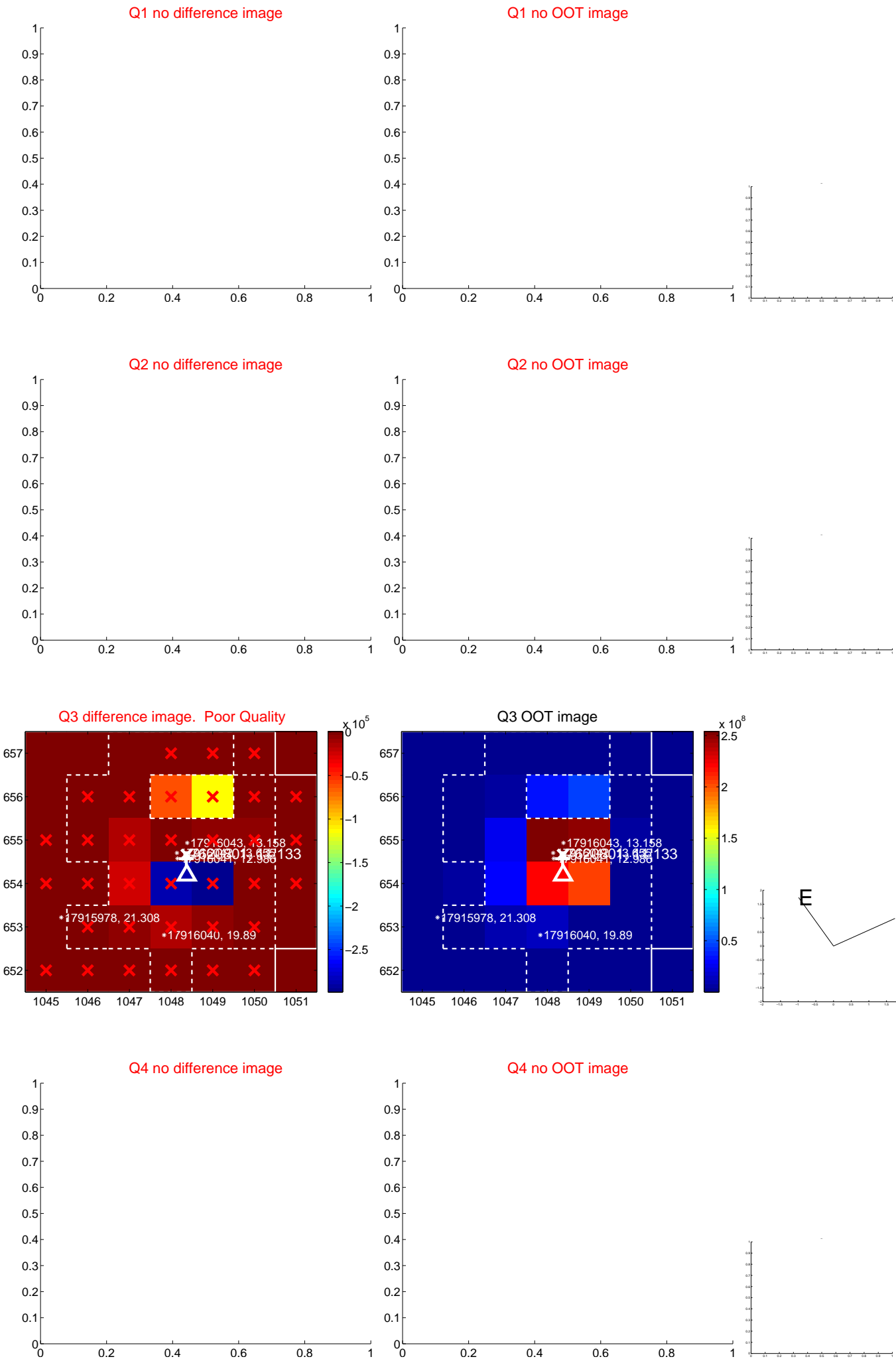
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.985 ± 0.893	2.22	-1.773 ± 1.326	0.893 ± 0.710
PRF-fit source offset from KIC position	3.790 ± 1.199	3.16	-3.763 ± 1.273	0.445 ± 0.618
photometric centroid source offset	10.89 ± 8.32	1.31	-5.86 ± 10.76	-9.18 ± 7.10

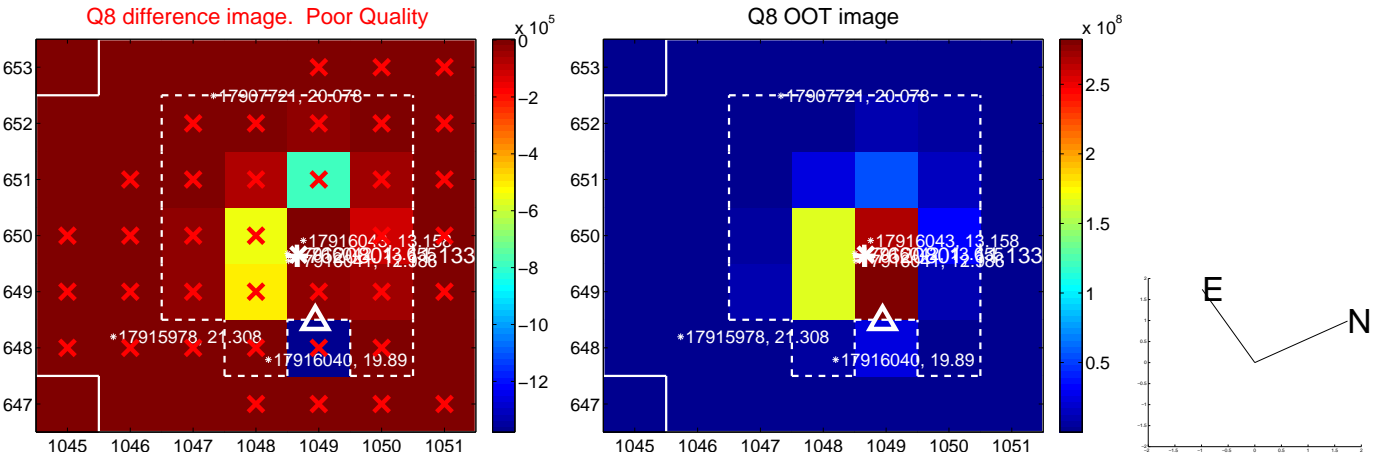
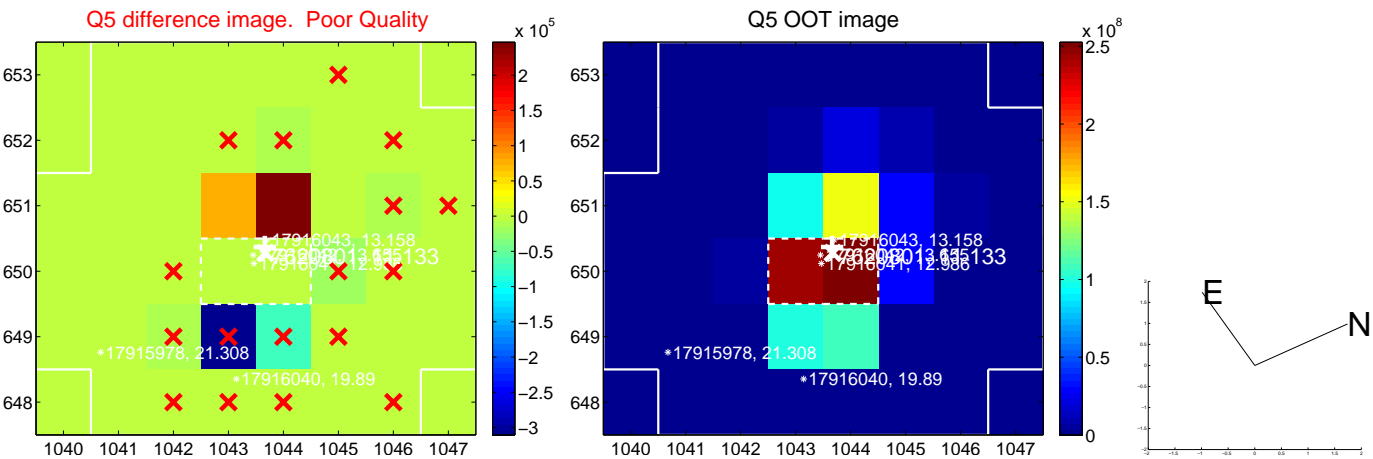


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

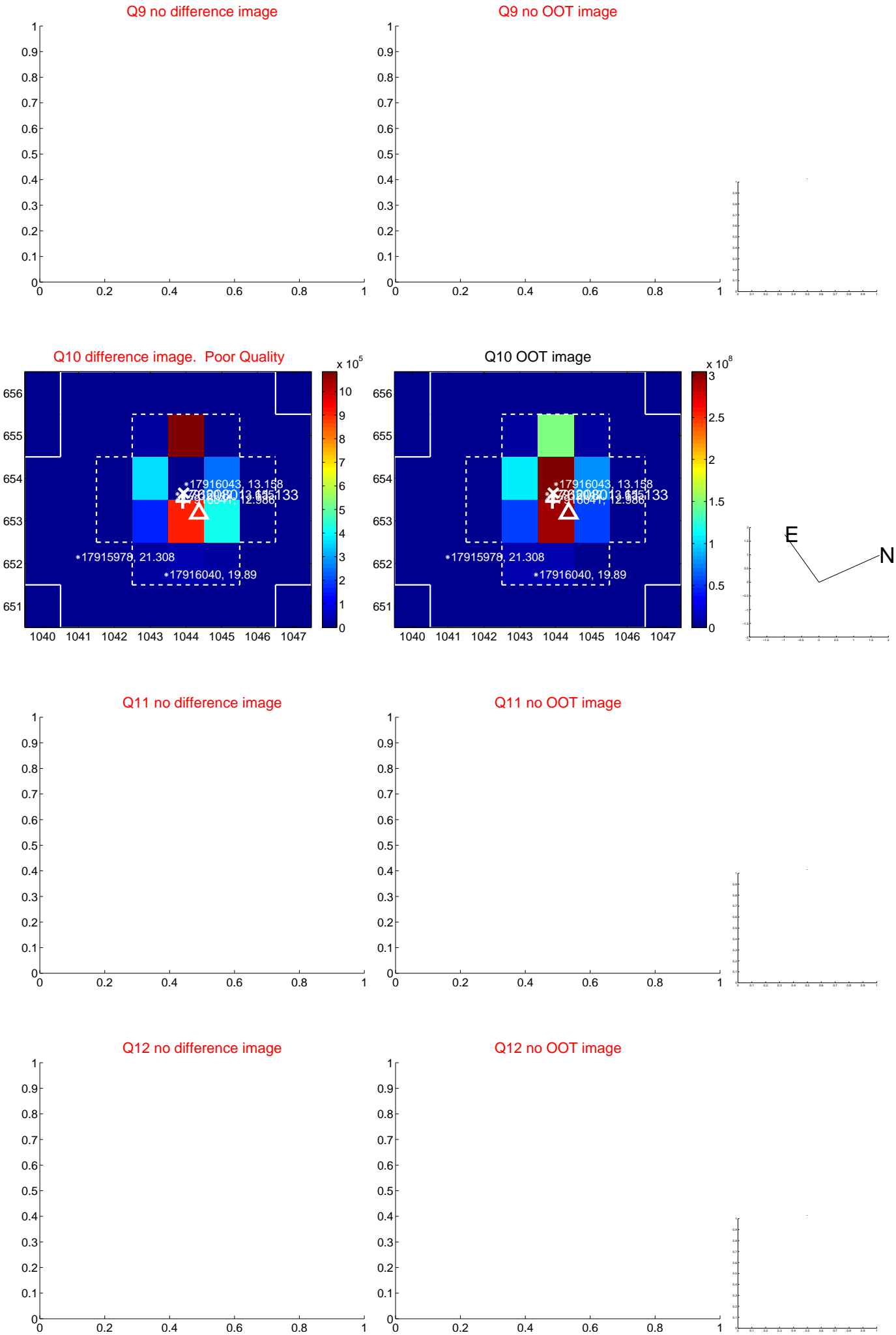
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



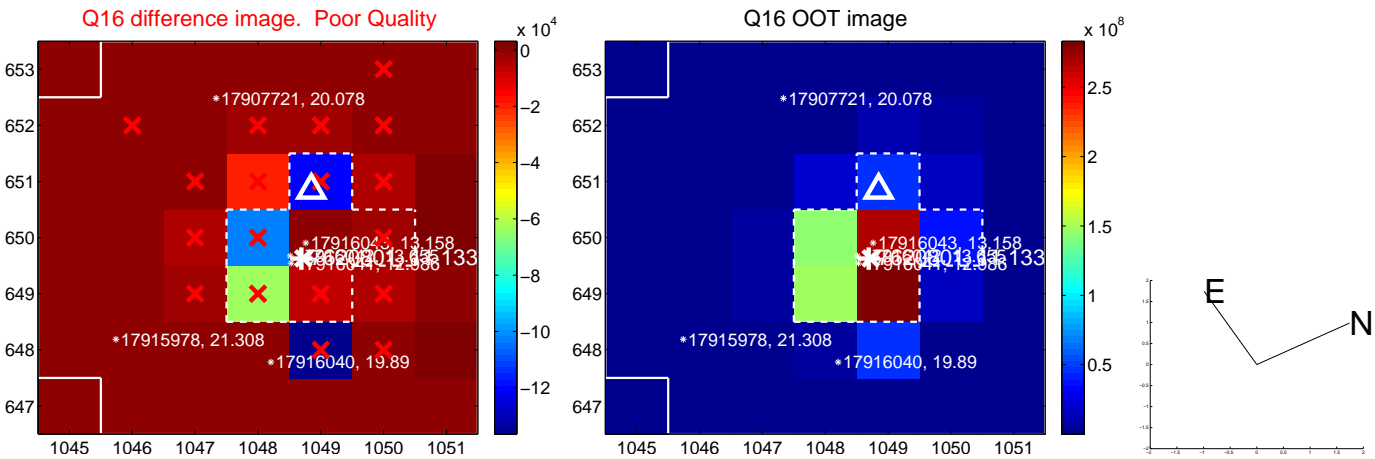
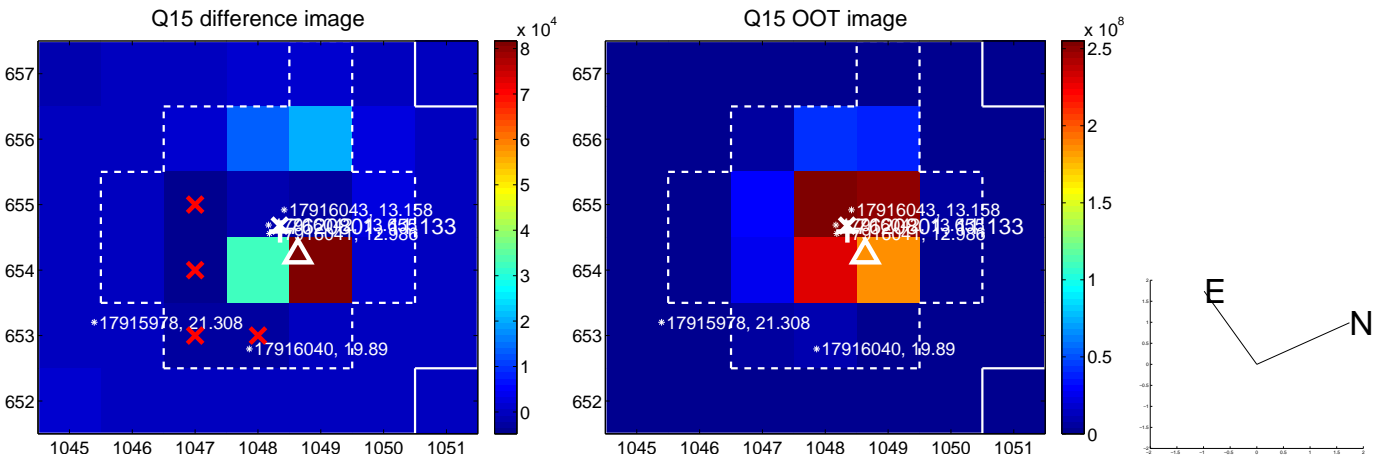
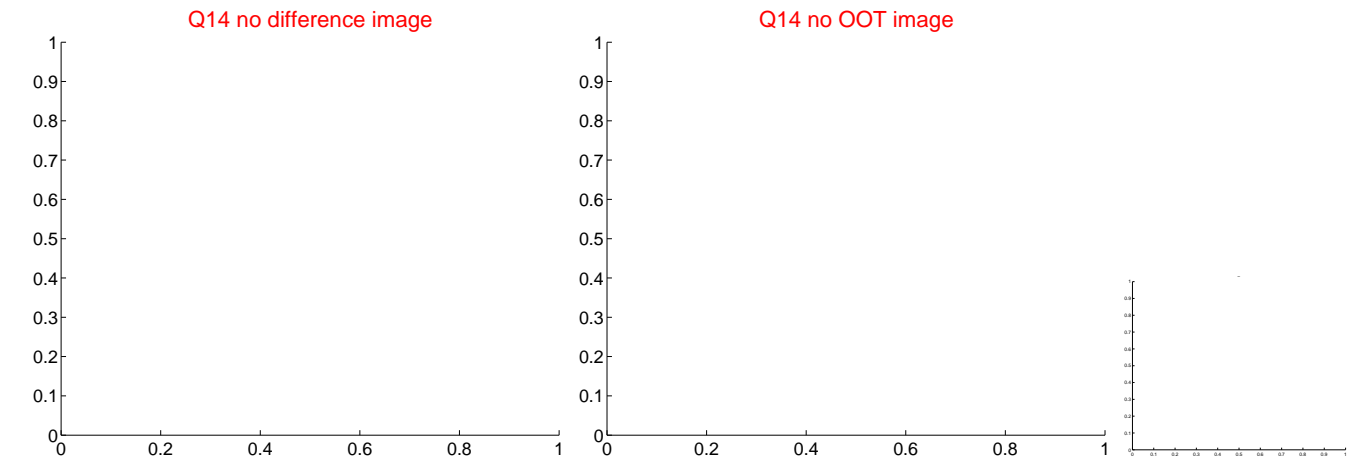
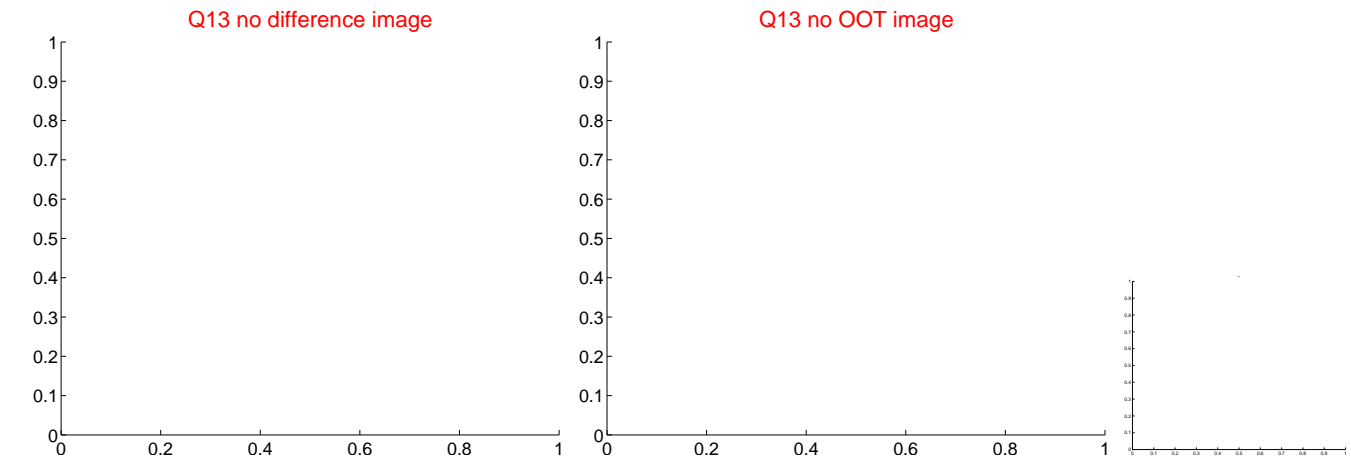
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



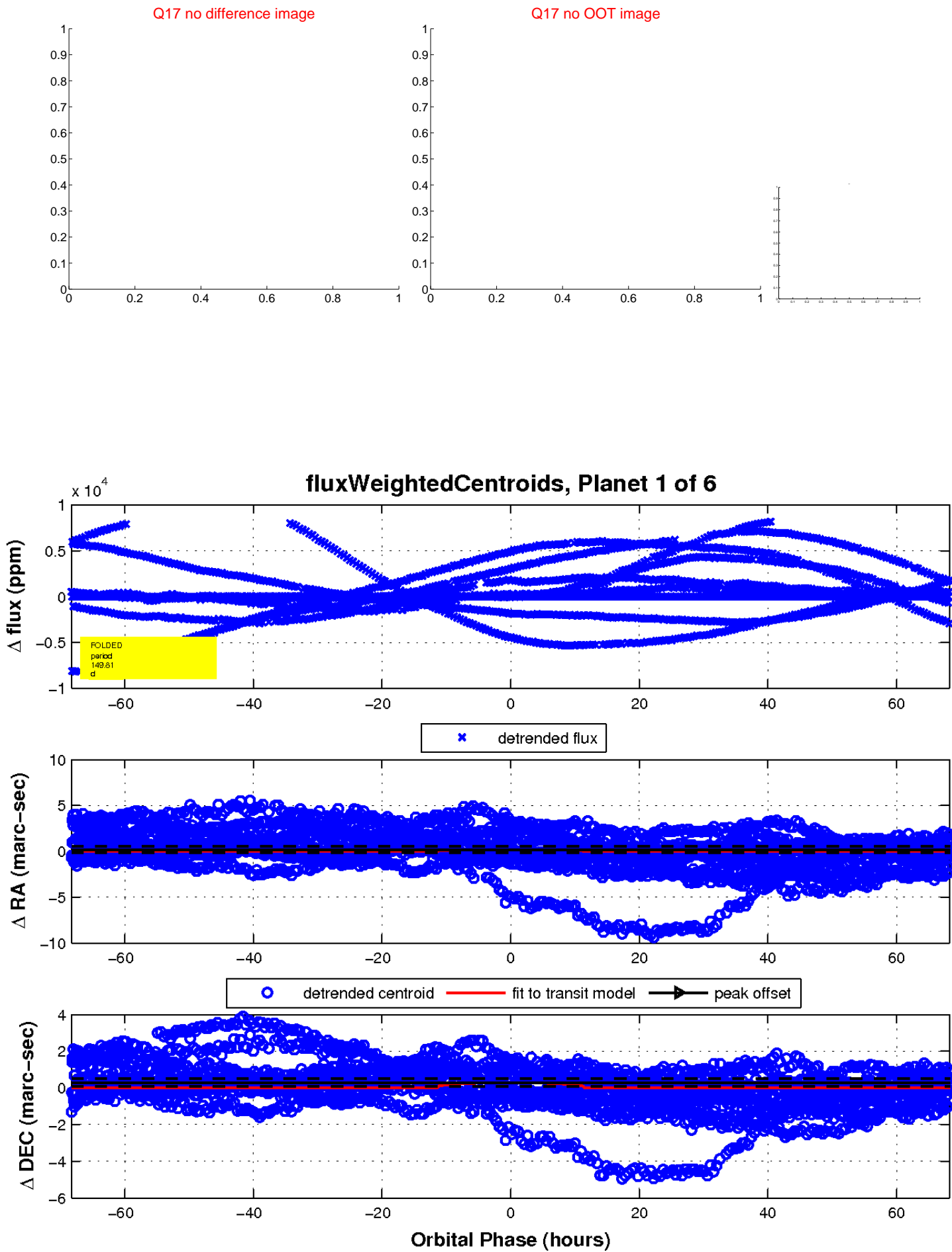
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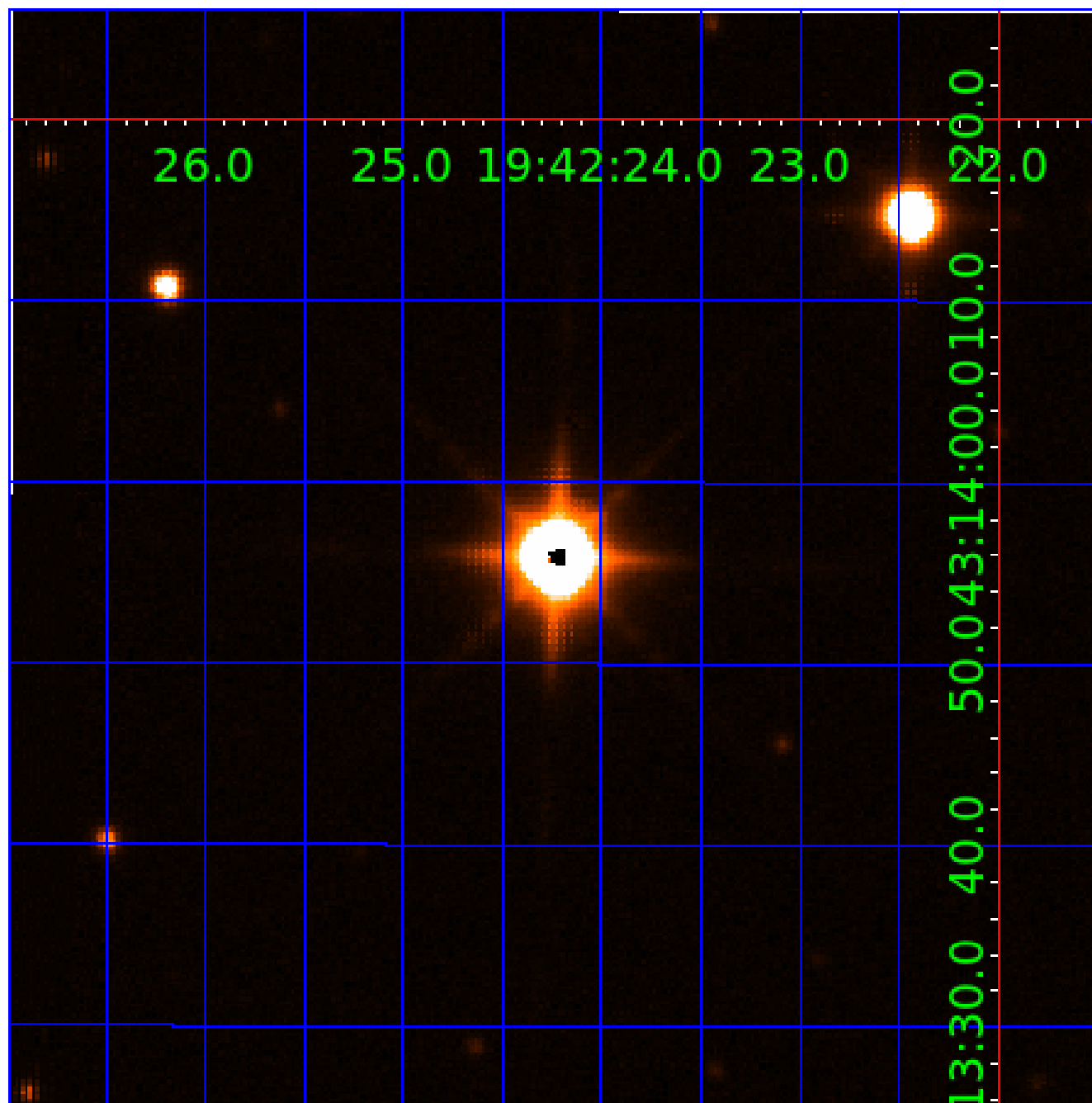


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

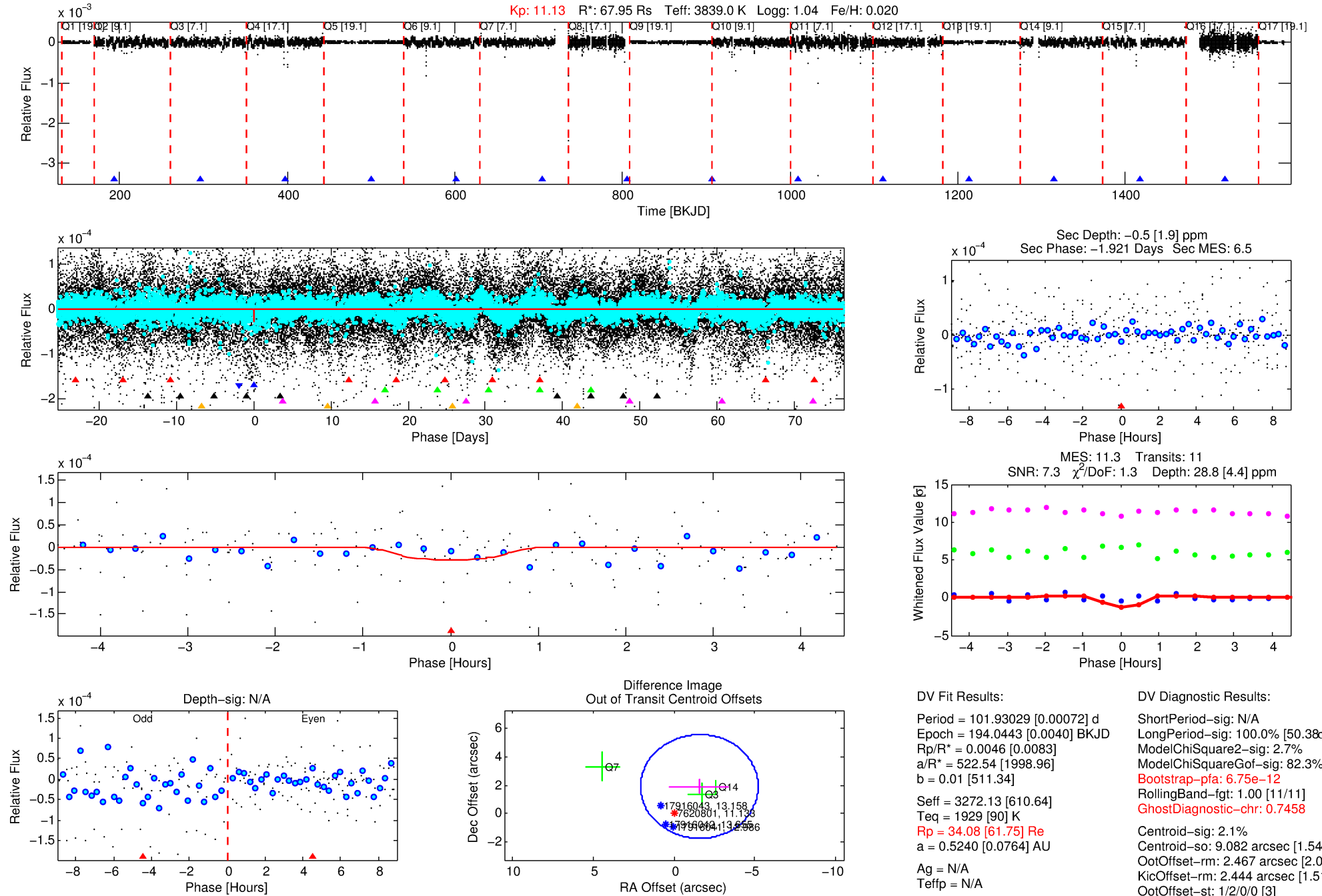
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-02

No Significant Match Found

DV One-Page Summary

KIC: 7620801 Candidate: 2 of 6 Period: 101.930 d



DV Fit Results:

Period = 101.93029 [0.00072] d
Epoch = 194.0443 [0.0040] BKJD
Rp/R* = 0.0046 [0.0083]
a/R* = 522.54 [1998.96]
b = 0.01 [511.34]
Seff = 3272.13 [610.64]
Teq = 1929 [90] K
Rp = 34.08 [61.75] Re
a = 0.5240 [0.0764] AU
Ag = N/A
Teffp = N/A

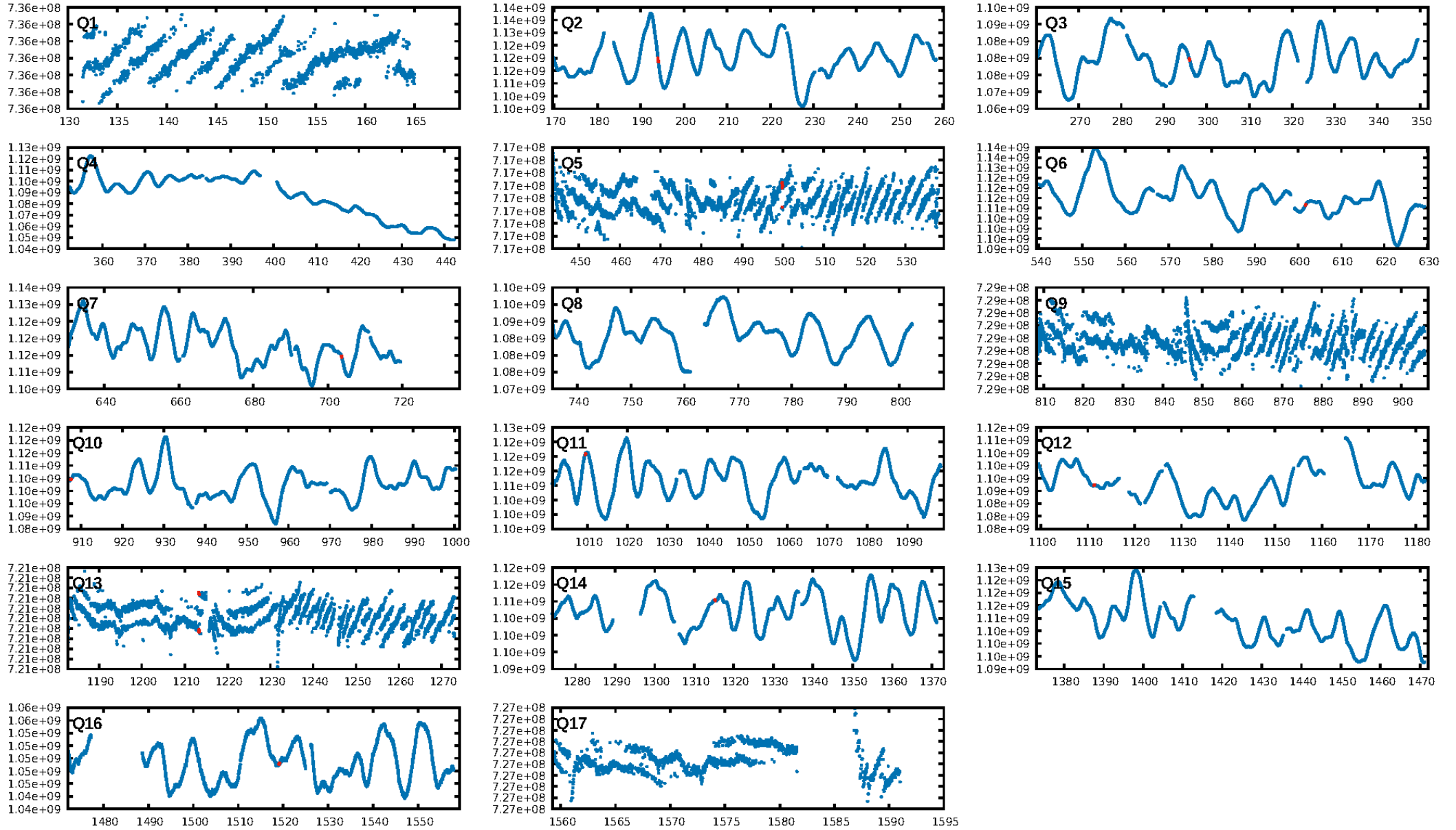
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [50.38]
ModelChiSquare2-sig: 2.7%
ModelChiSquareGof-sig: 82.3%
Bootstrap-pfa: 6.75e-12
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.7458
Centroid-sig: 2.1%
Centroid-so: 9.082 arcsec [1.54]
OotOffset-rm: 2.467 arcsec [2.03]
KicOffset-rm: 2.444 arcsec [1.51]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [10/10]

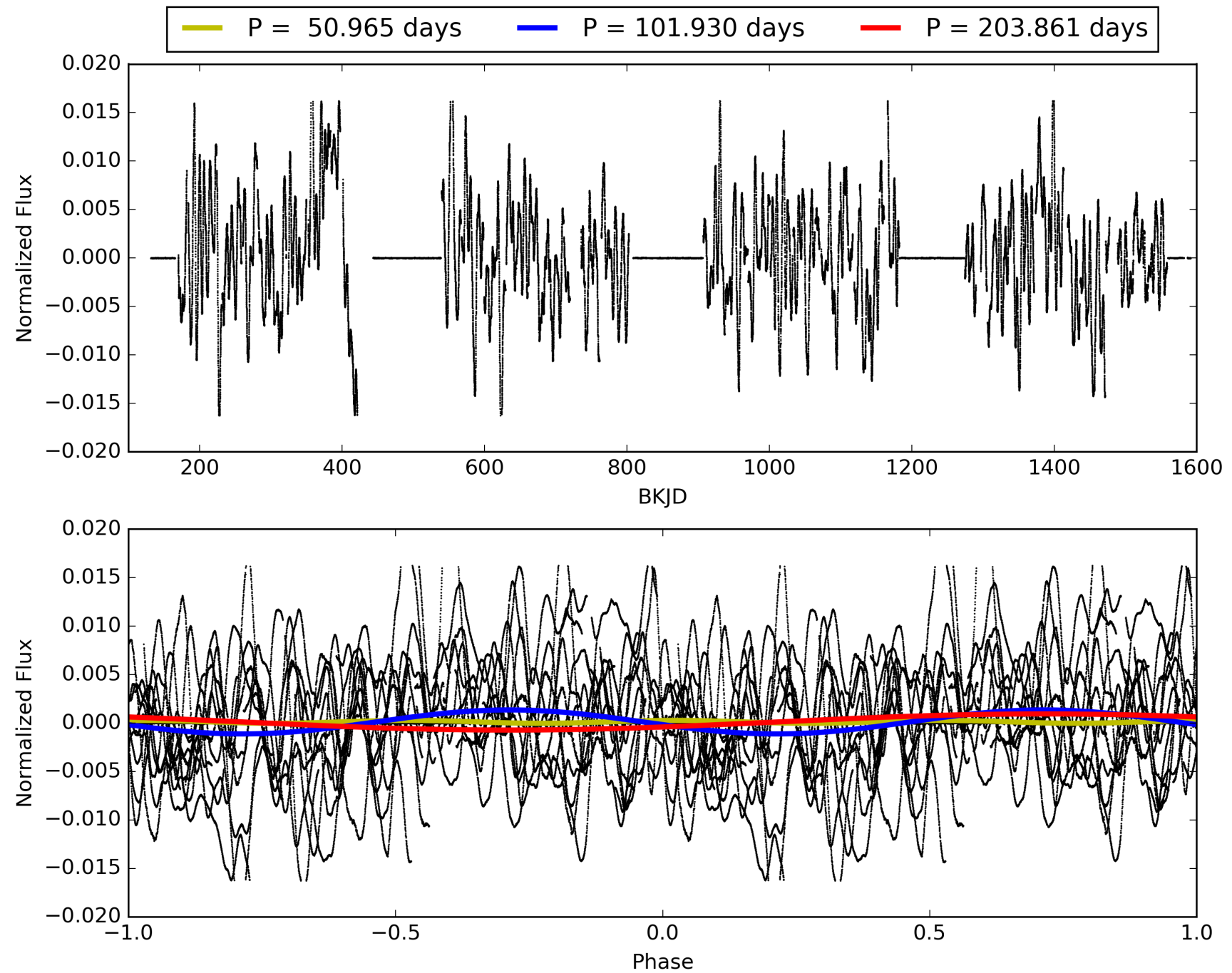
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007620801-02, PDC Light Curves

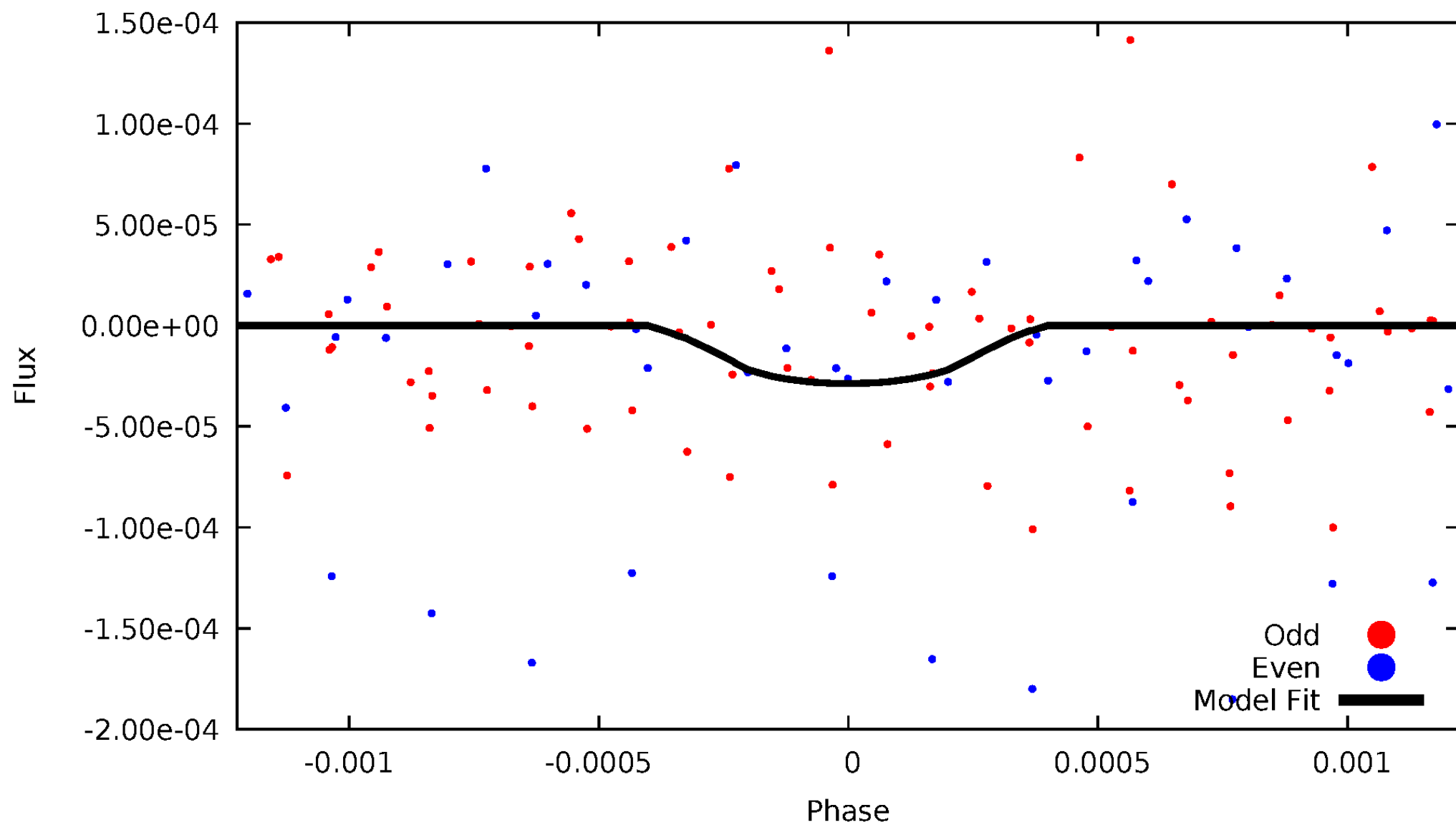


TCE 007620801-02



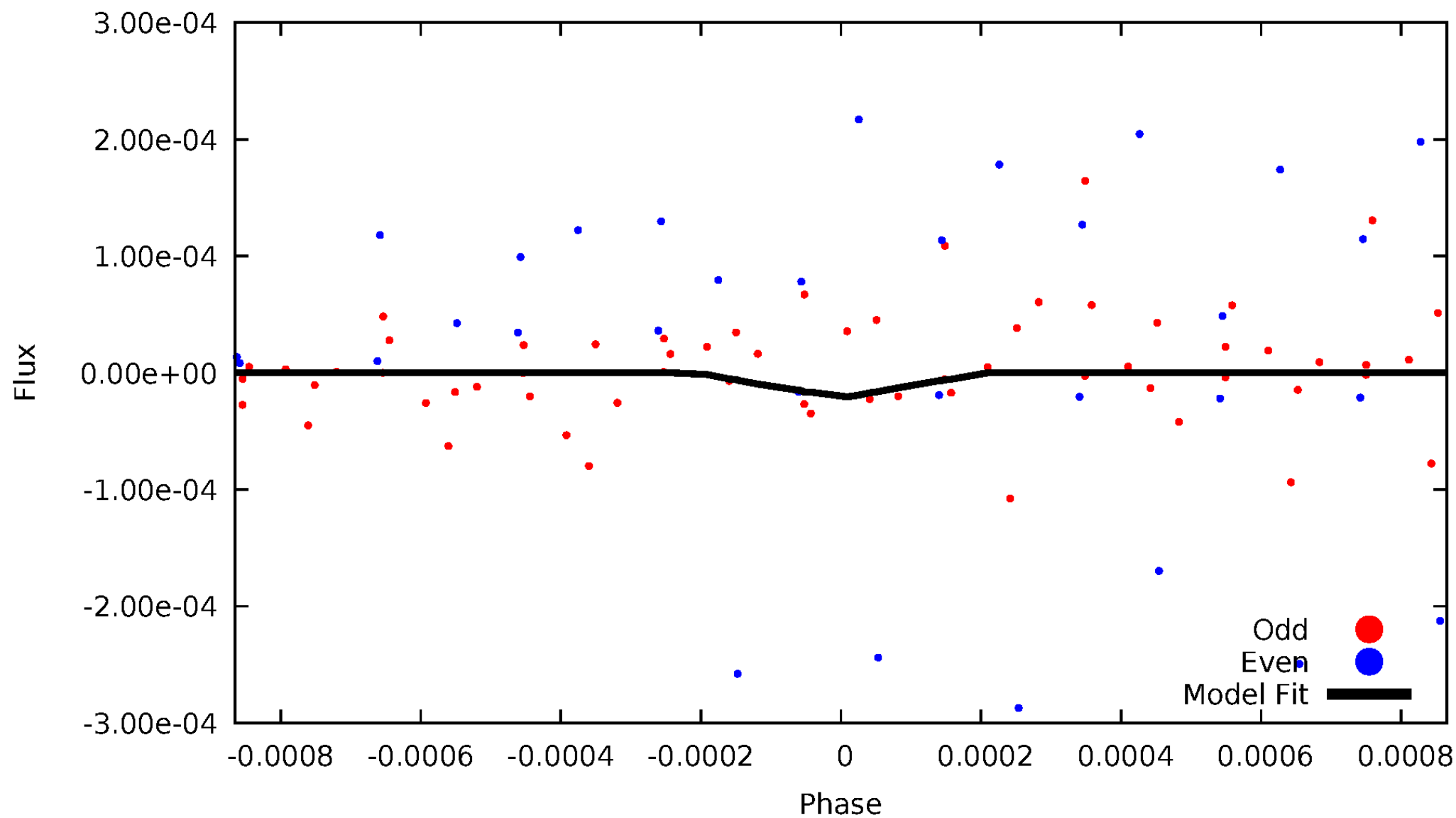
DV Odd/Even

TCE 007620801-02



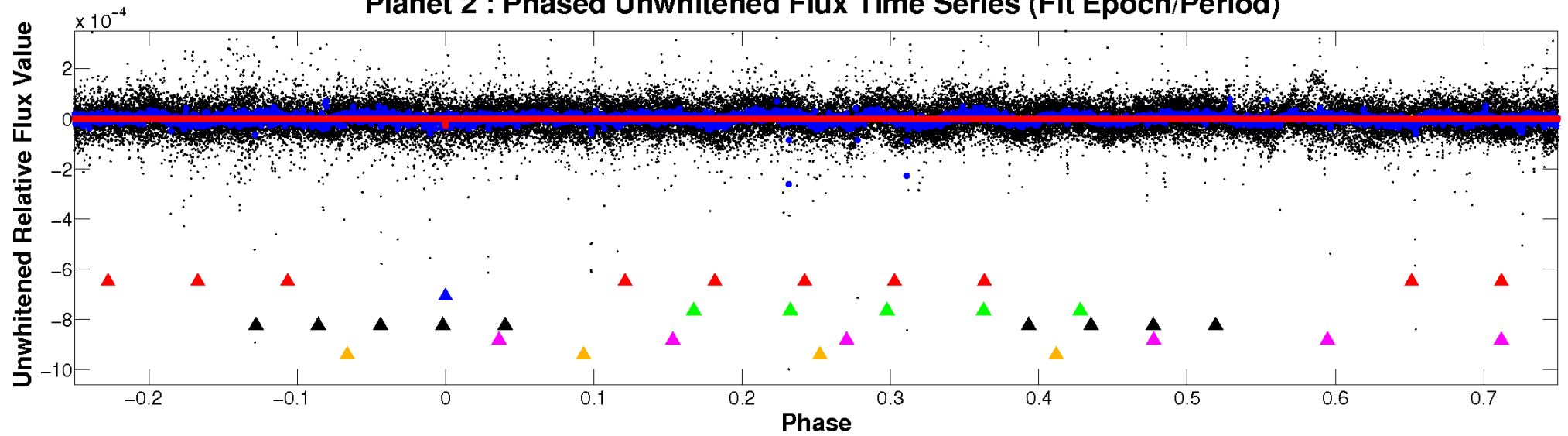
ALT Odd/Even

TCE 007620801-02

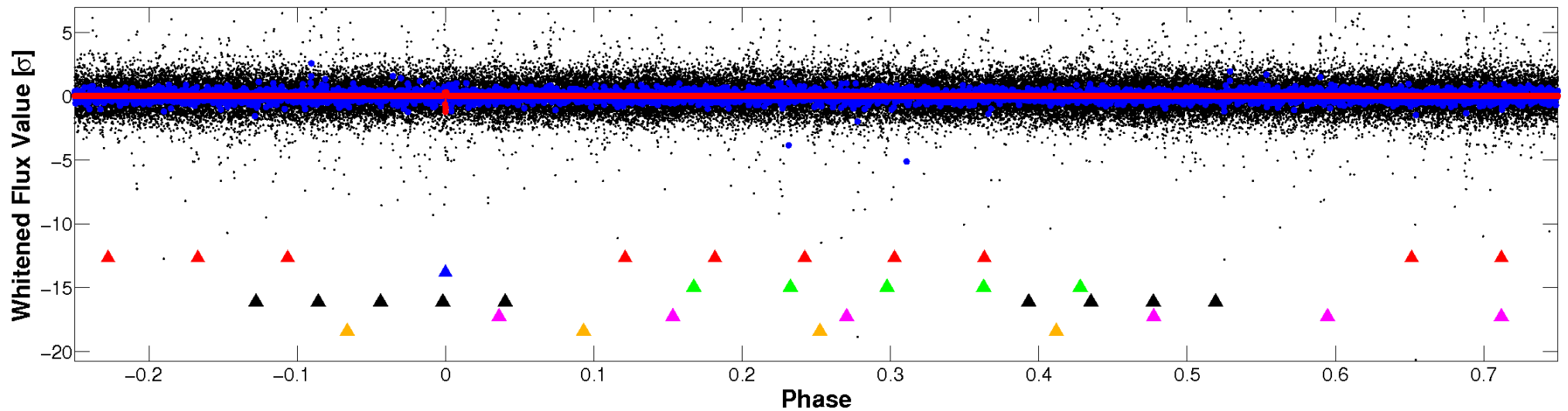


Non-Whitened Vs. Whitened Light Curve

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

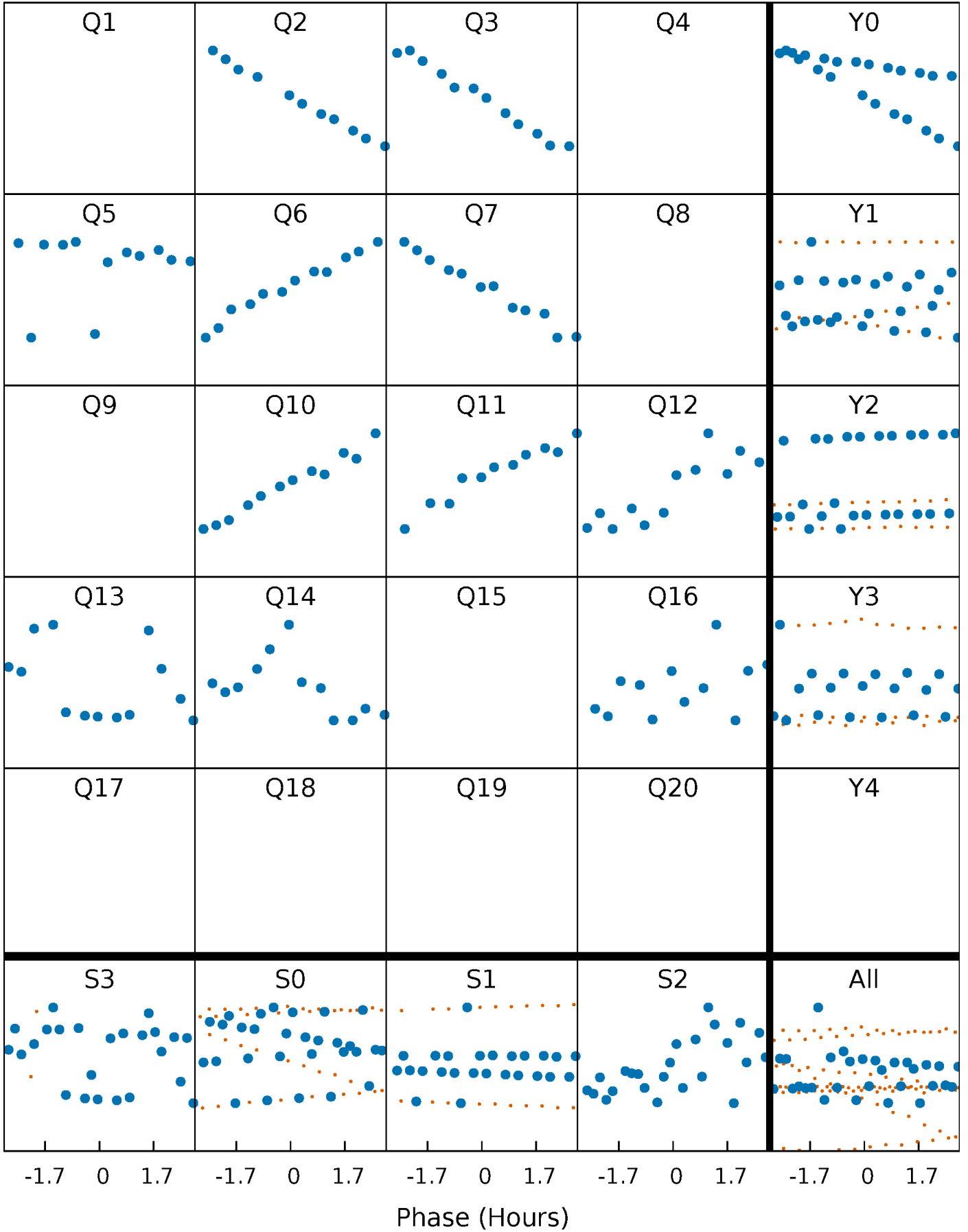


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



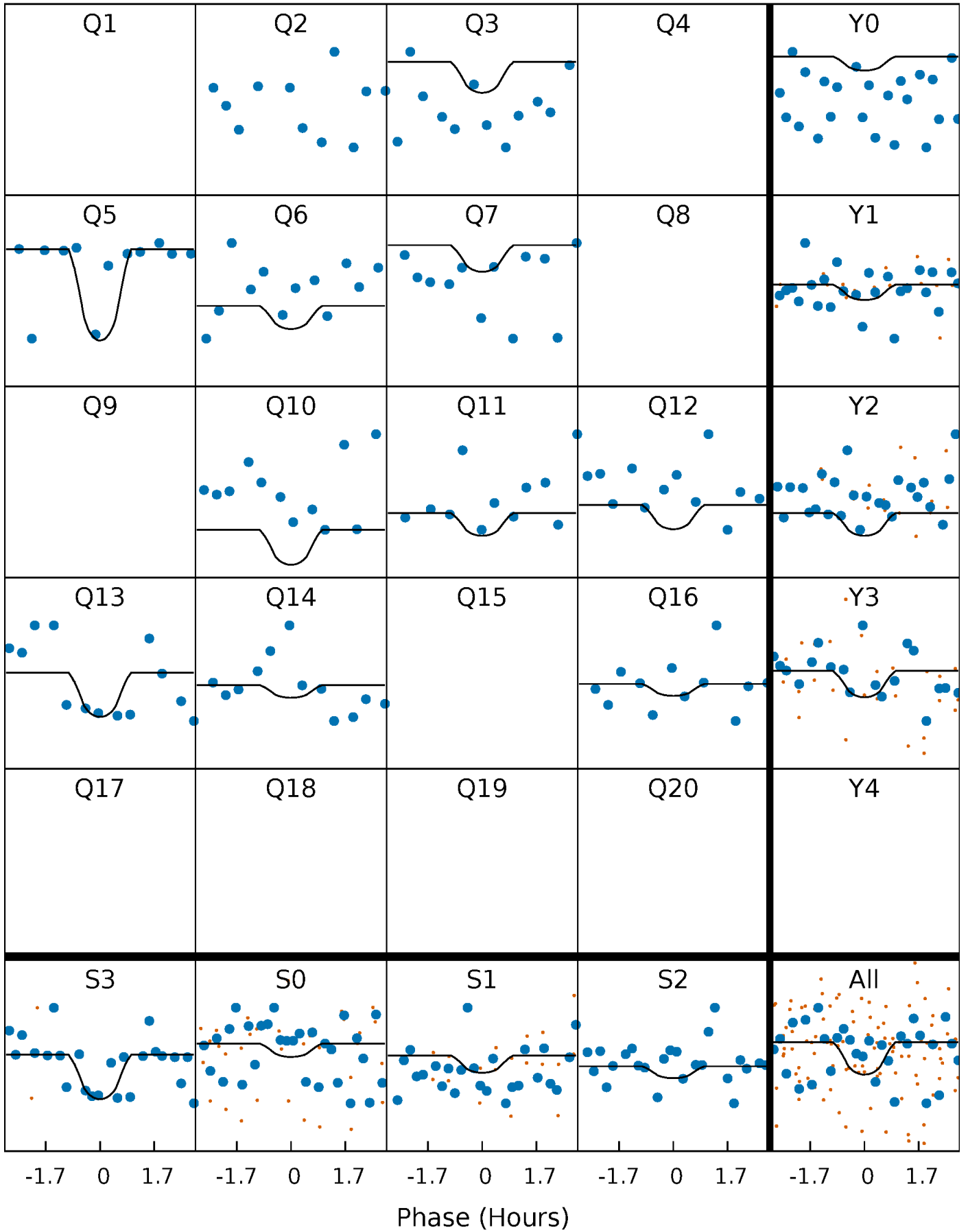
PDC Quarter-Phased Transit Curves

TCE 007620801-02 P=101.930288 Days $T_0=194.044319$ (BKJD)



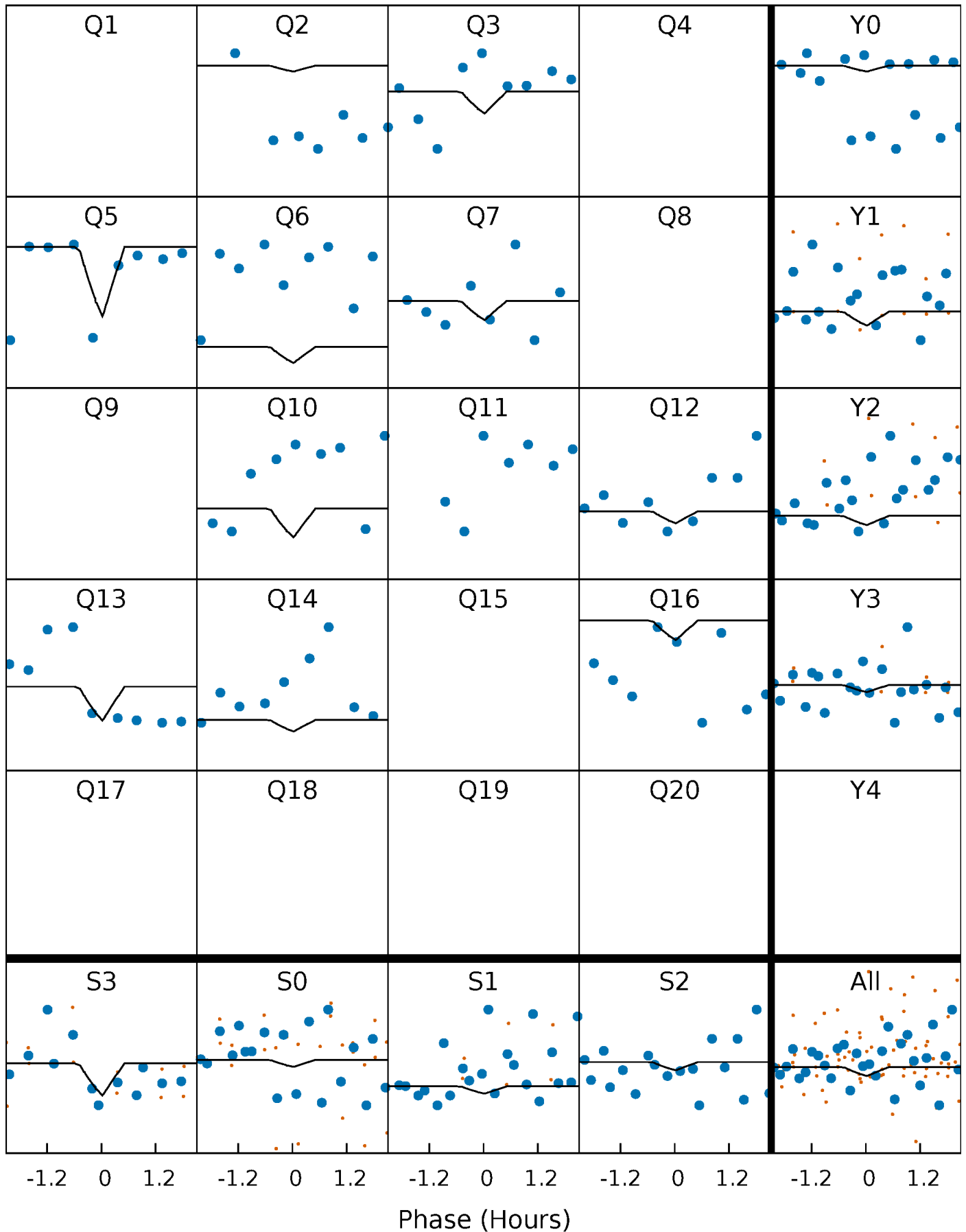
DV Quarter-Phased Transit Curves

TCE 007620801-02 $P=101.930288$ Days $T_0=194.044319$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

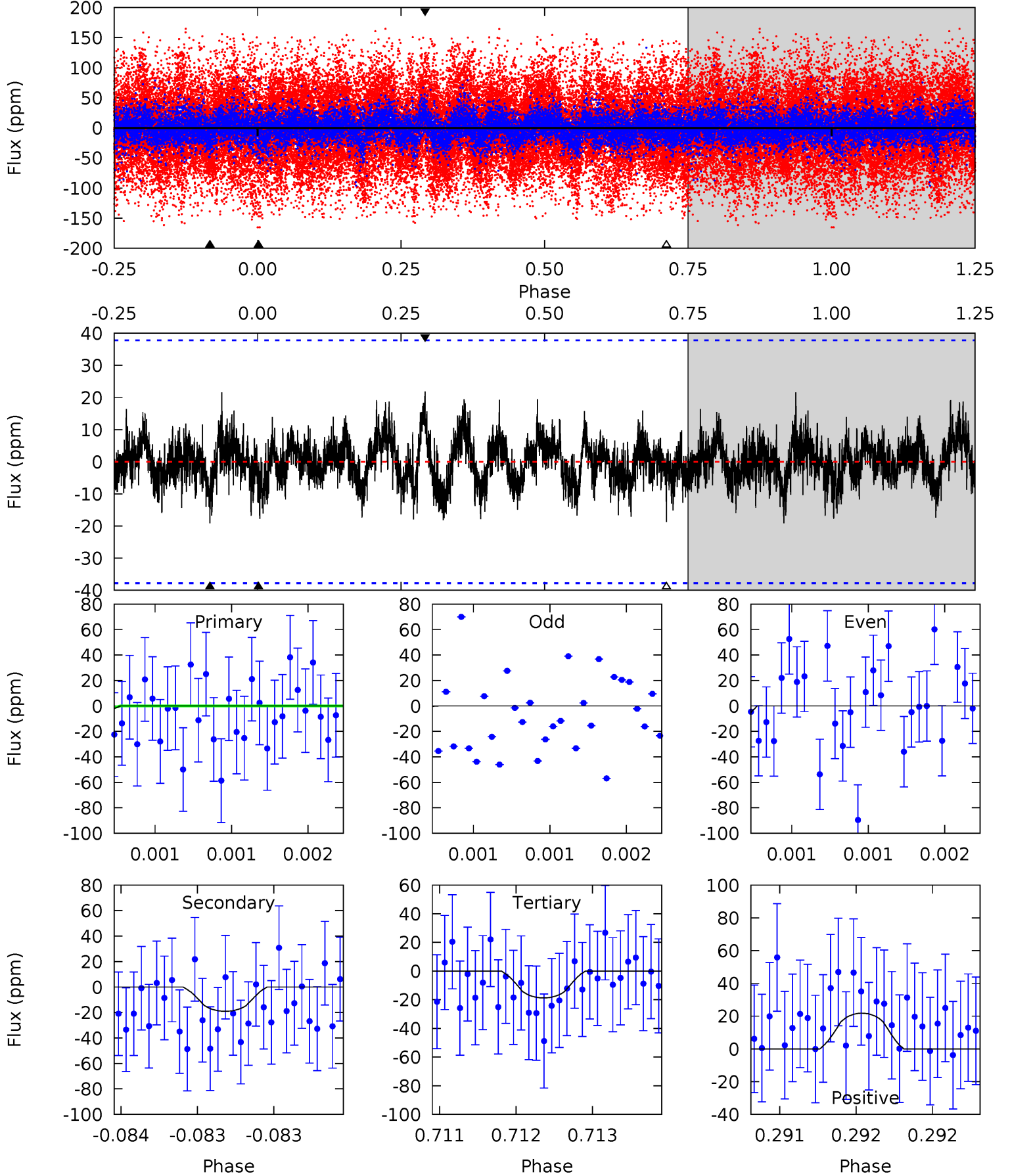
TCE 007620801-02 P=101.925634 Days $T_0=194.056034$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-02, P = 101.930288 Days, E = 92.114031 Days

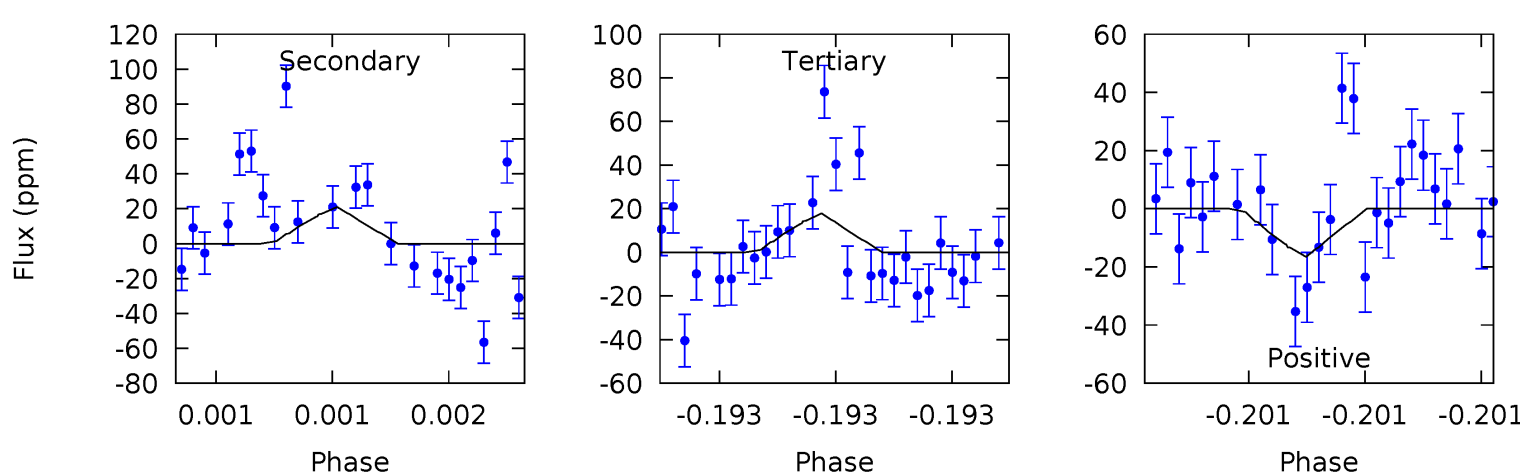
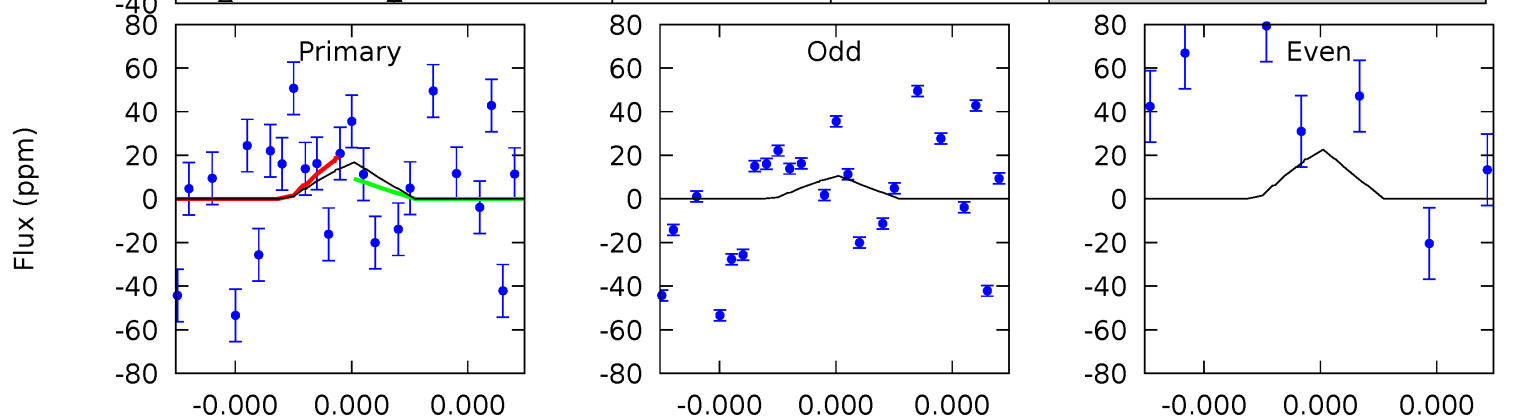
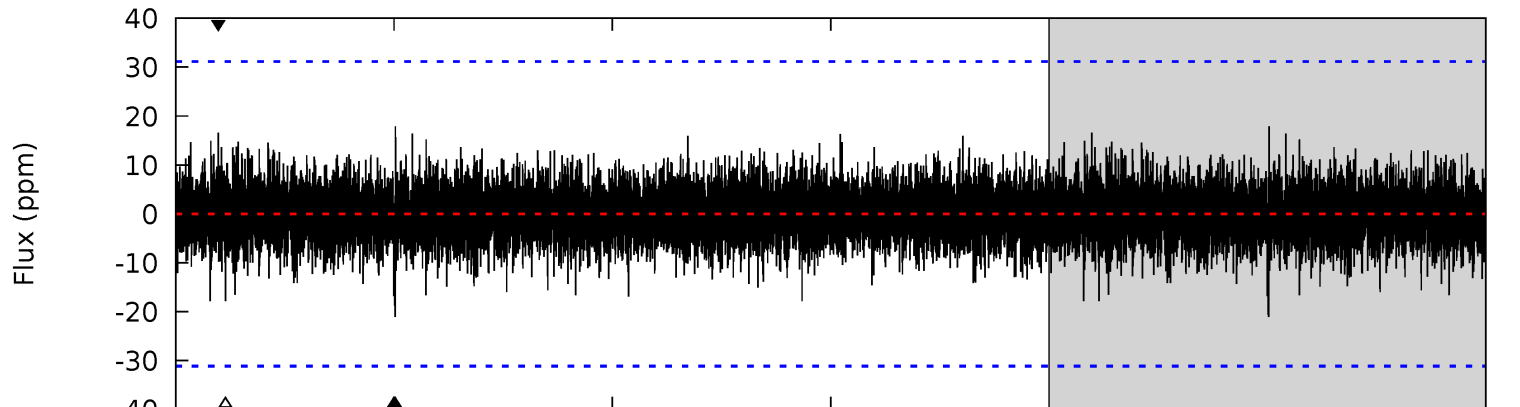
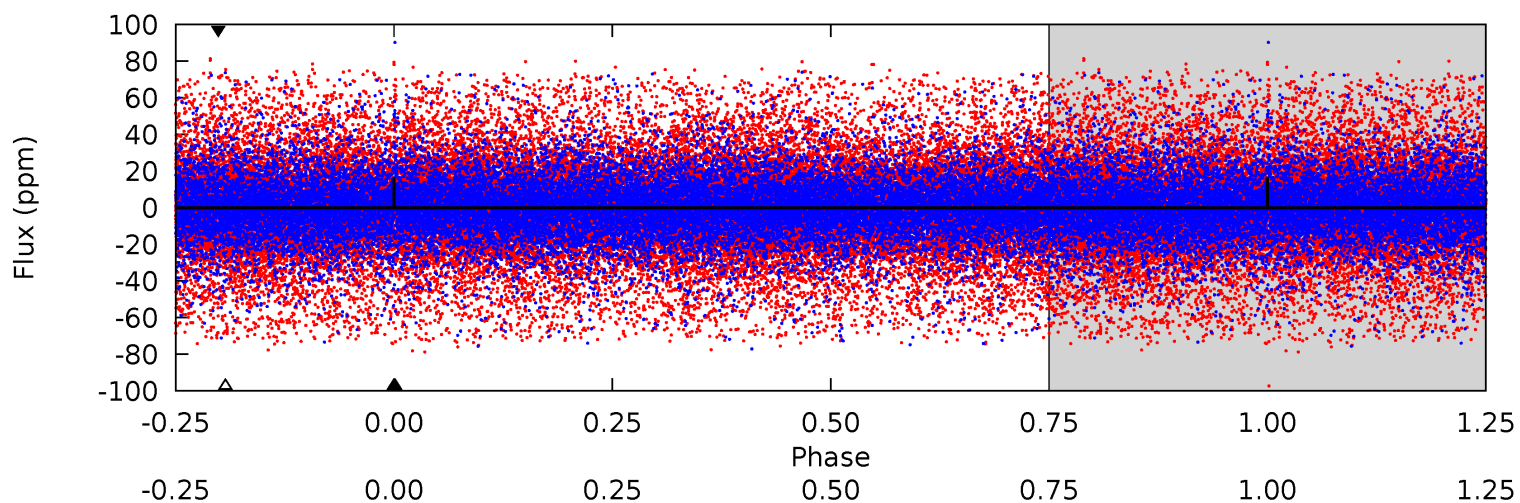
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.87	2.78	2.73	3.18	5.51	3.38	0.88	-0.86	-1.31	0.05	-0.40	2.04	1.04	0.53	0.70



Alt Model-Shift Uniqueness Test

007620801-02, P = 101.925634 Days, E = 92.130400 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.03	3.79	3.22	2.98	5.62	3.55	0.79	-0.19	0.04	0.57	0.80	1.00	-0.92	0.46	0.89



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 7	$54.73^{+52.11}_{-37.16}$	2682^{+82}_{-94}	2958^{+1675}_{-5323}	$0.860^{+7.645}_{-0.650}$
Alt.	-21 ± 6	$55.92^{+49.09}_{-37.30}$	2680^{+80}_{-95}	3061^{+1597}_{-5190}	$0.985^{+7.603}_{-0.716}$

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 $A_{obs} \gg 1.0$

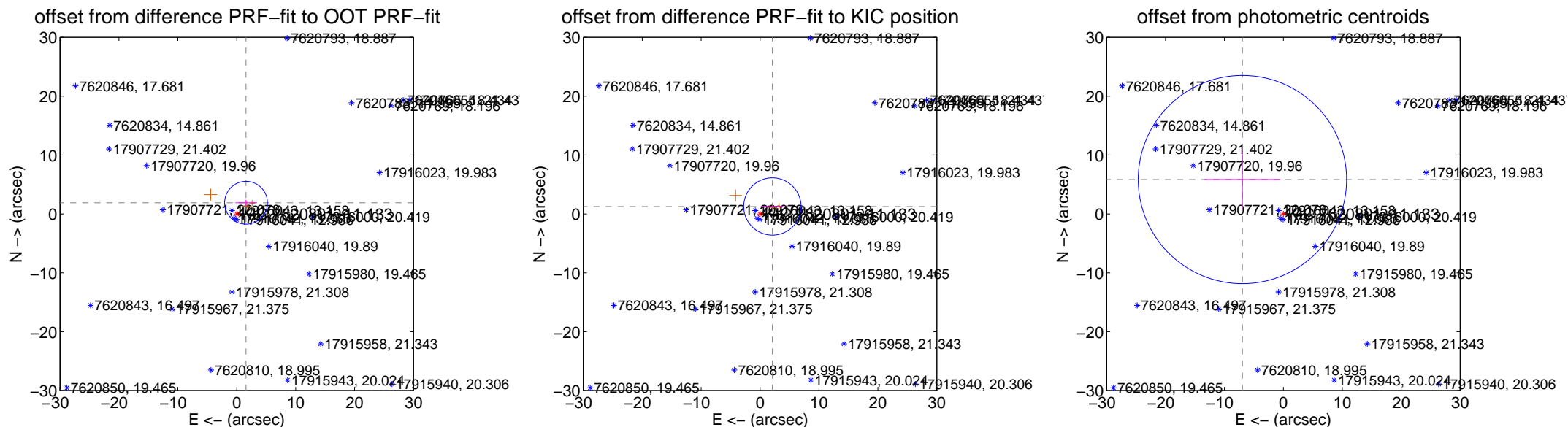
DV Centroid Data

Supplemental centroid analysis for 007620801-02. **Kepler magnitude: 11.13.** Transit SNR 7.25

There are 0 quarters with good PRF difference image offsets

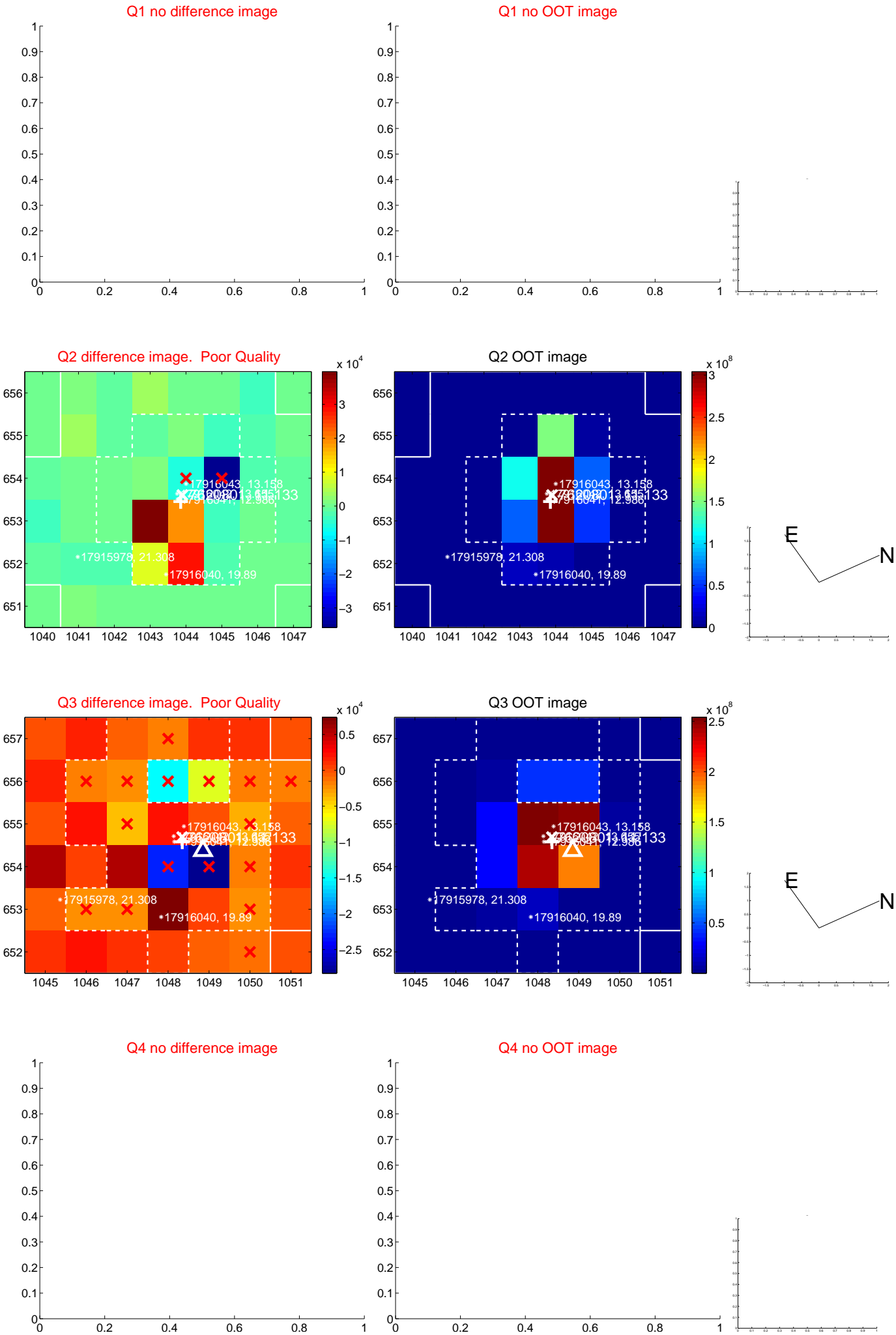
The direct PRF centroid is offset from the target star catalog position by about 0.81 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.467 ± 1.212	2.03	-1.572 ± 1.808	1.900 ± 0.489
PRF-fit source offset from KIC position	2.444 ± 1.622	1.51	-2.093 ± 1.888	1.263 ± 0.264
photometric centroid source offset	9.08 ± 5.89	1.54	6.95 ± 6.45	5.84 ± 5.00

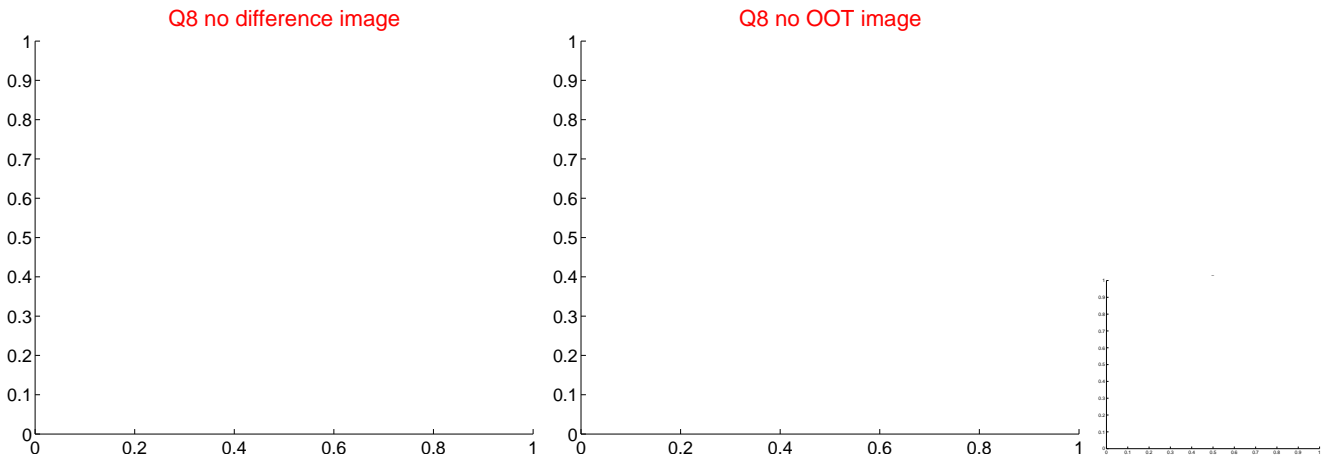
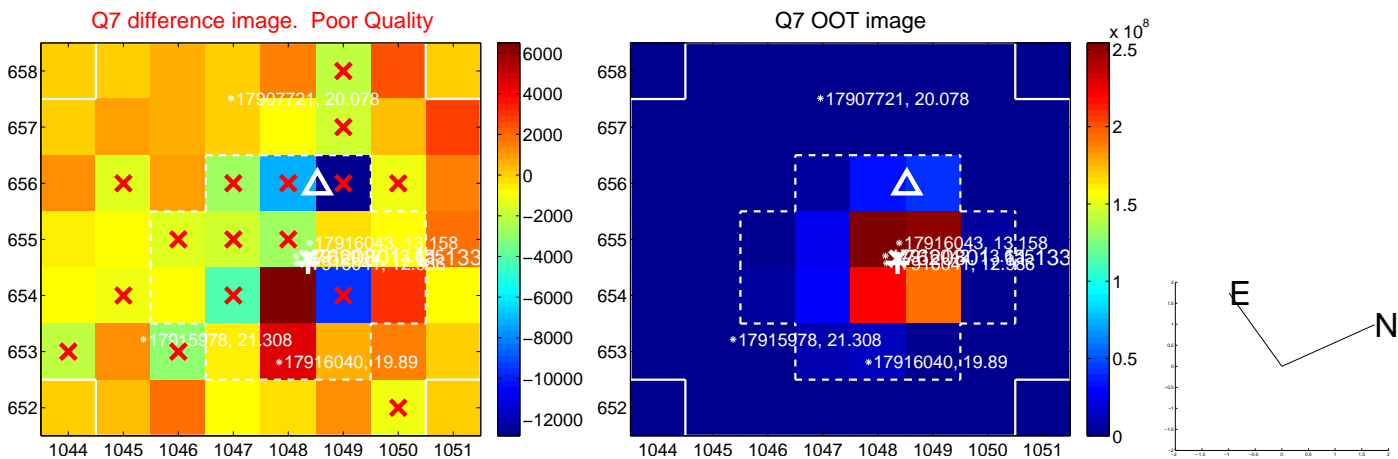
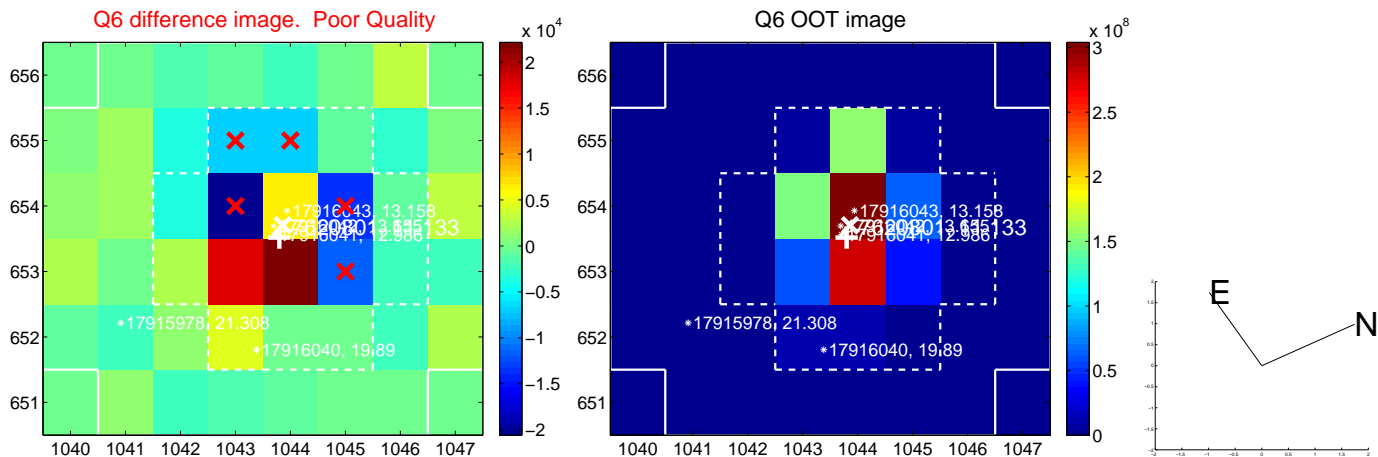
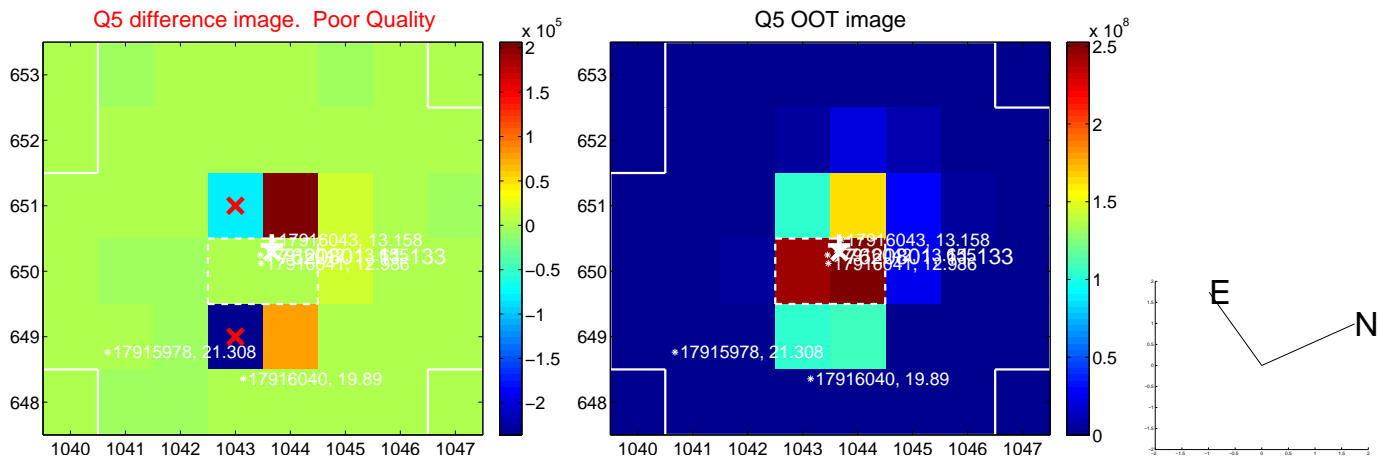


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

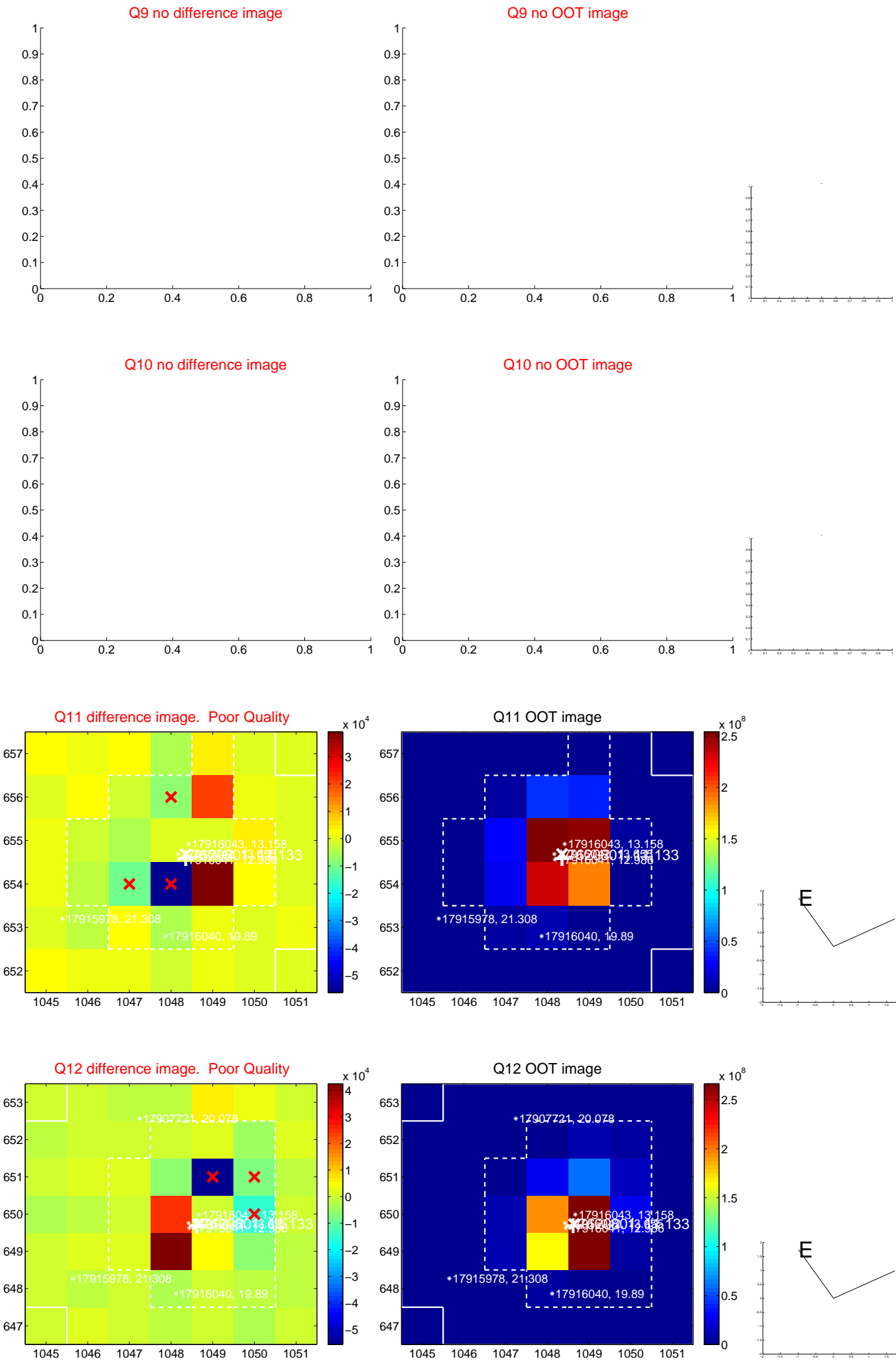
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



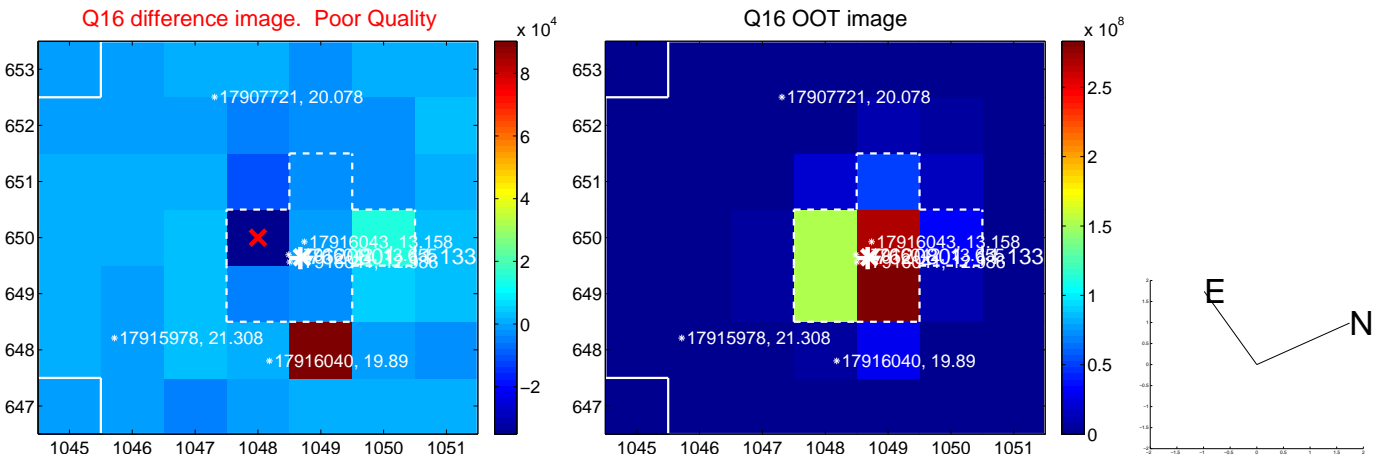
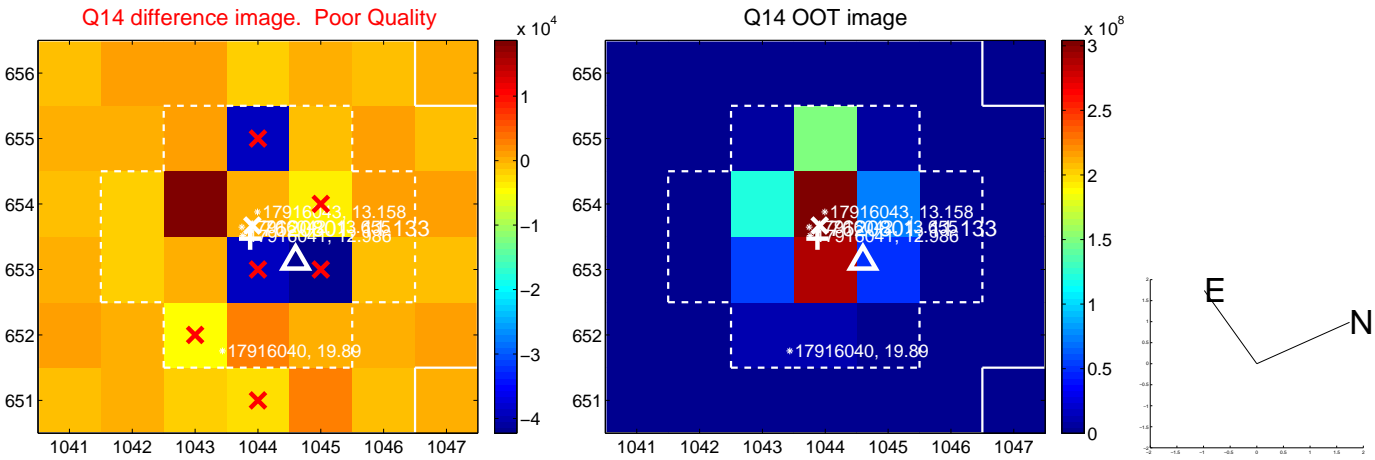
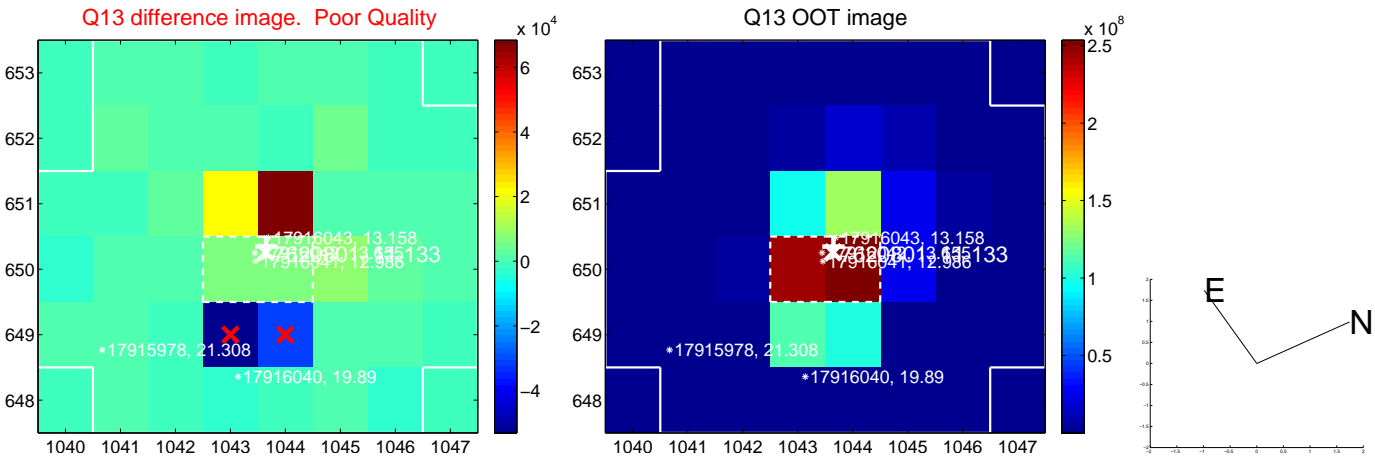
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



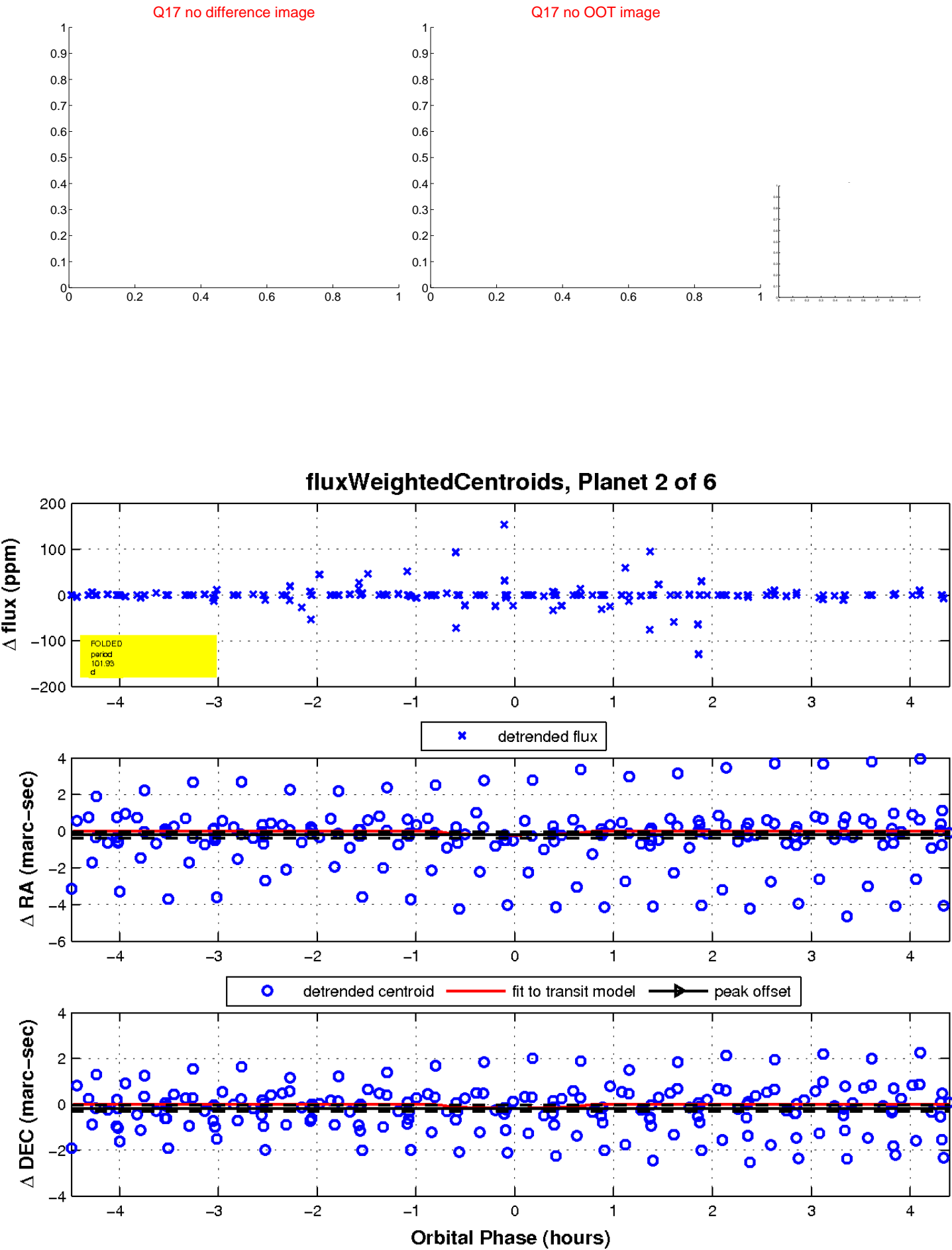
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

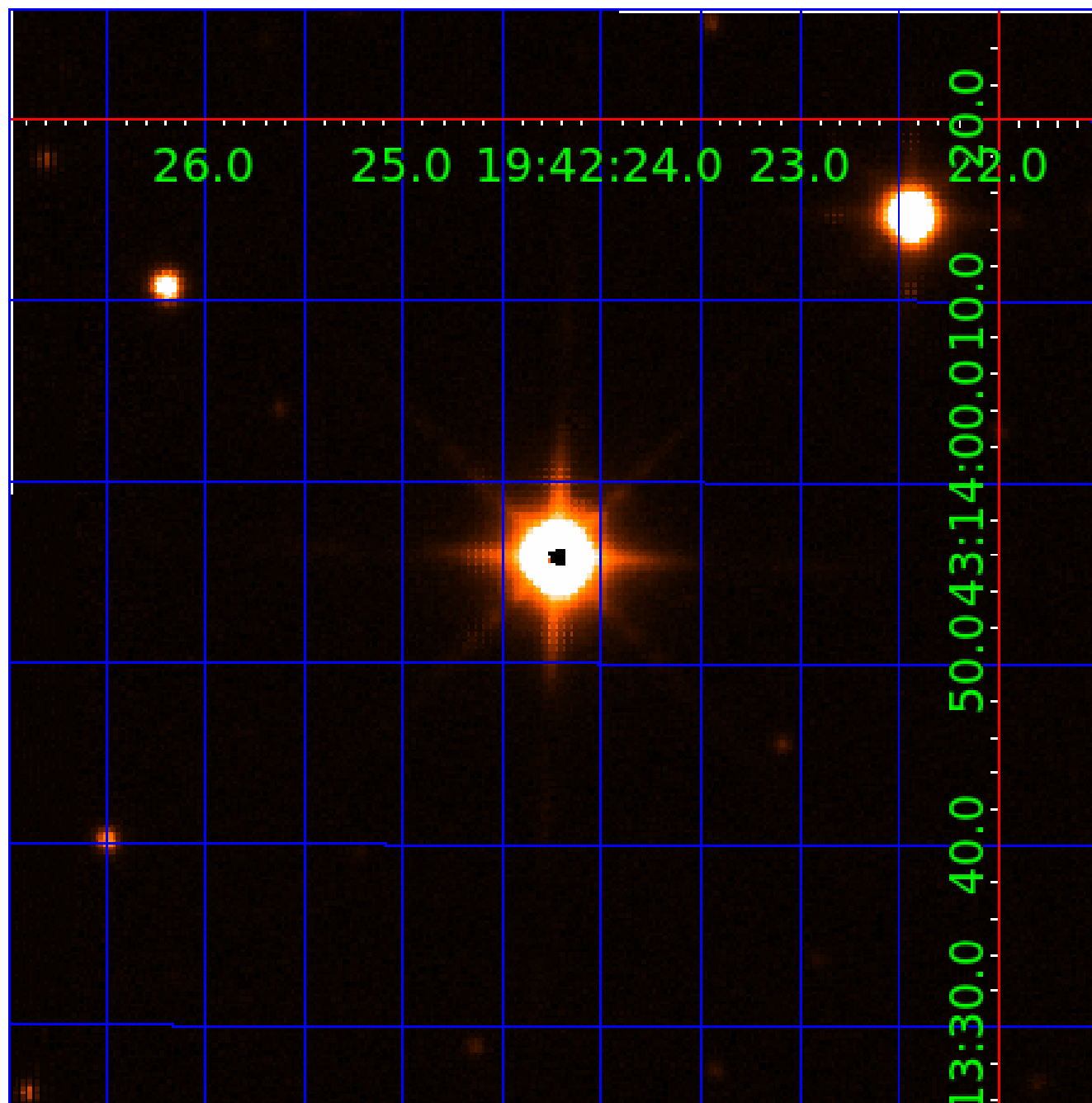


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
007620801-02	OBS	No	101.930288	194.044319	28.8	1.497	11.3	7.3	67.95	3839	34.08	3272.13
007620801-03	OBS	No	312.431315	211.107481	26.5	3.154	10.2	10.6	67.95	3839	44.21	734.90
007620801-04	OBS	No	155.036231	282.950918	49.2	15.000	7.9	-1.0	67.95	3839	44.28	1870.64
007620801-05	OBS	No	248.853873	221.614121	22.9	5.791	8.7	9.2	67.95	3839	41.25	995.35
007620801-06	OBS	No	423.961891	289.227453	29.7	14.963	8.3	6.6	67.95	3839	44.79	489.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

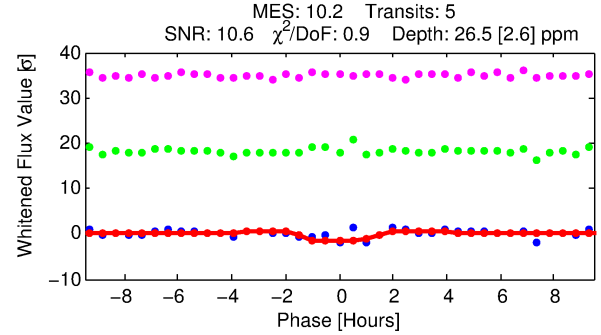
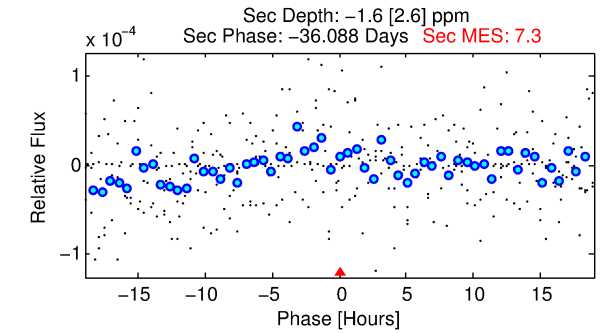
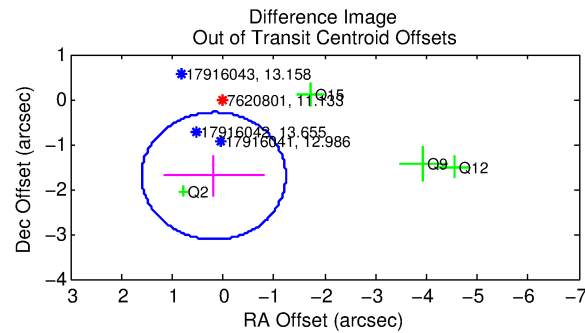
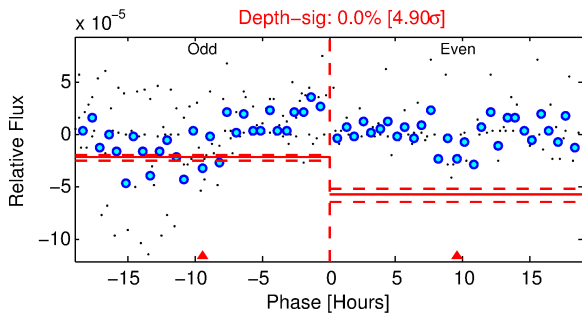
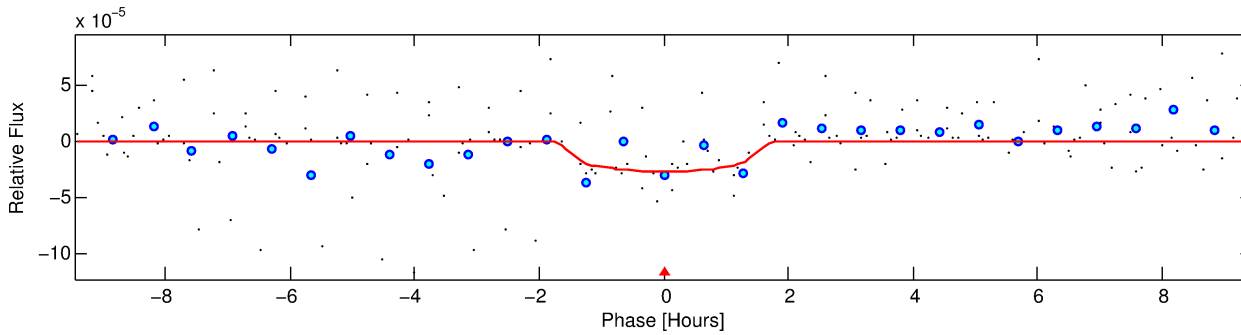
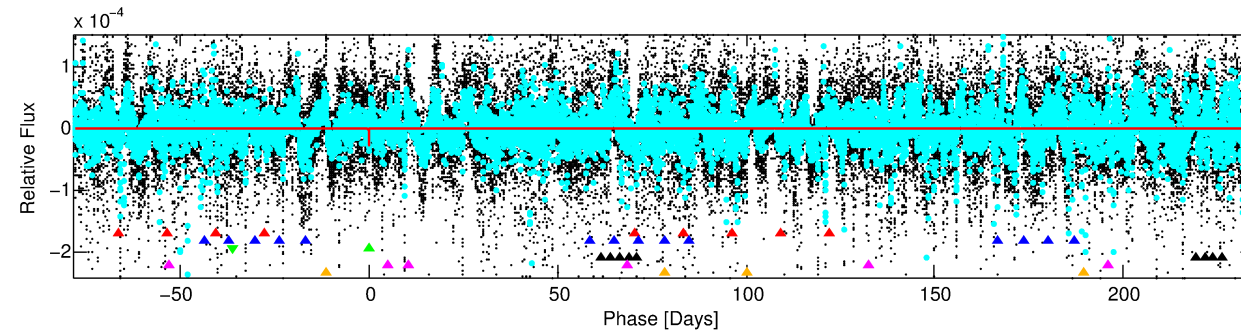
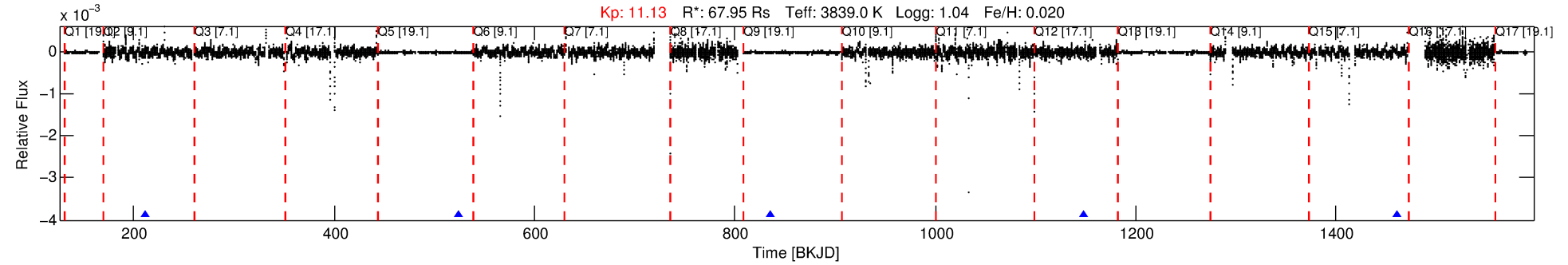
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-03

No Significant Match Found

DV One-Page Summary

KIC: 7620801 Candidate: 3 of 6 Period: 312.431 d



DV Fit Results:

Period = 312.43131 [0.00454] d
Epoch = 211.1075 [0.0079] BKJD
Rp/R* = 0.0060 [0.0028]
a/R* = 347.22 [541.70]
b = 0.90 [0.35]
Seff = 734.90 [137.15]
Teq = 1328 [62] K
Rp = 44.21 [23.08] Re
a = 1.1058 [0.1613] AU
Ag = N/A
Teffp = N/A

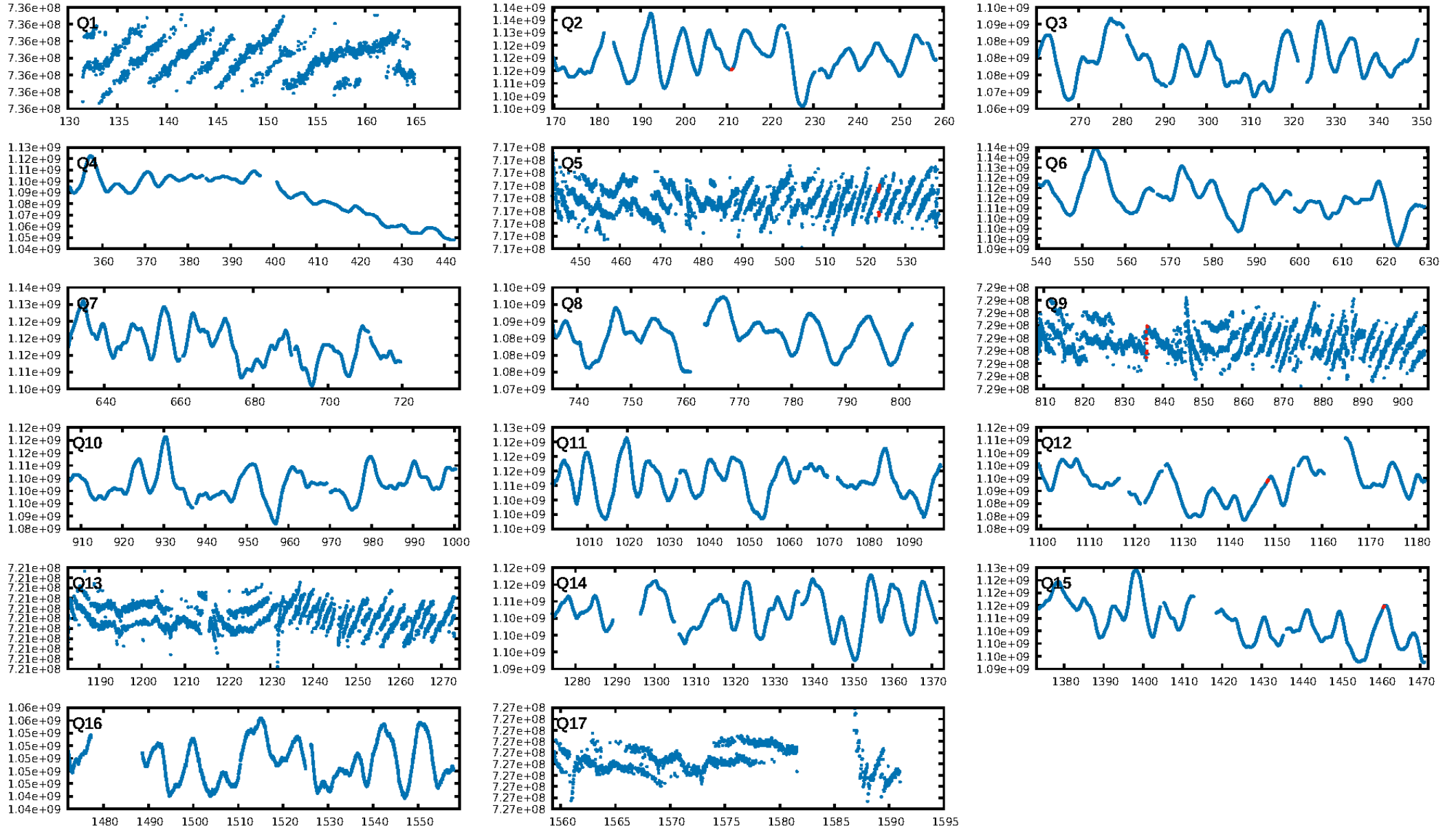
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [231.39 σ]
LongPeriod-sig: 100.0% [175.05 σ]
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 72.9%
Bootstrap-pfa: 9.45e-08
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -2.995
Centroid-sig: 6.9%
Centroid-so: 9.269 arcsec [1.28 σ]
OotOffset-rm: 1.716 arcsec [3.63 σ]
KicOffset-rm: 2.080 arcsec [3.78 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [5/5]

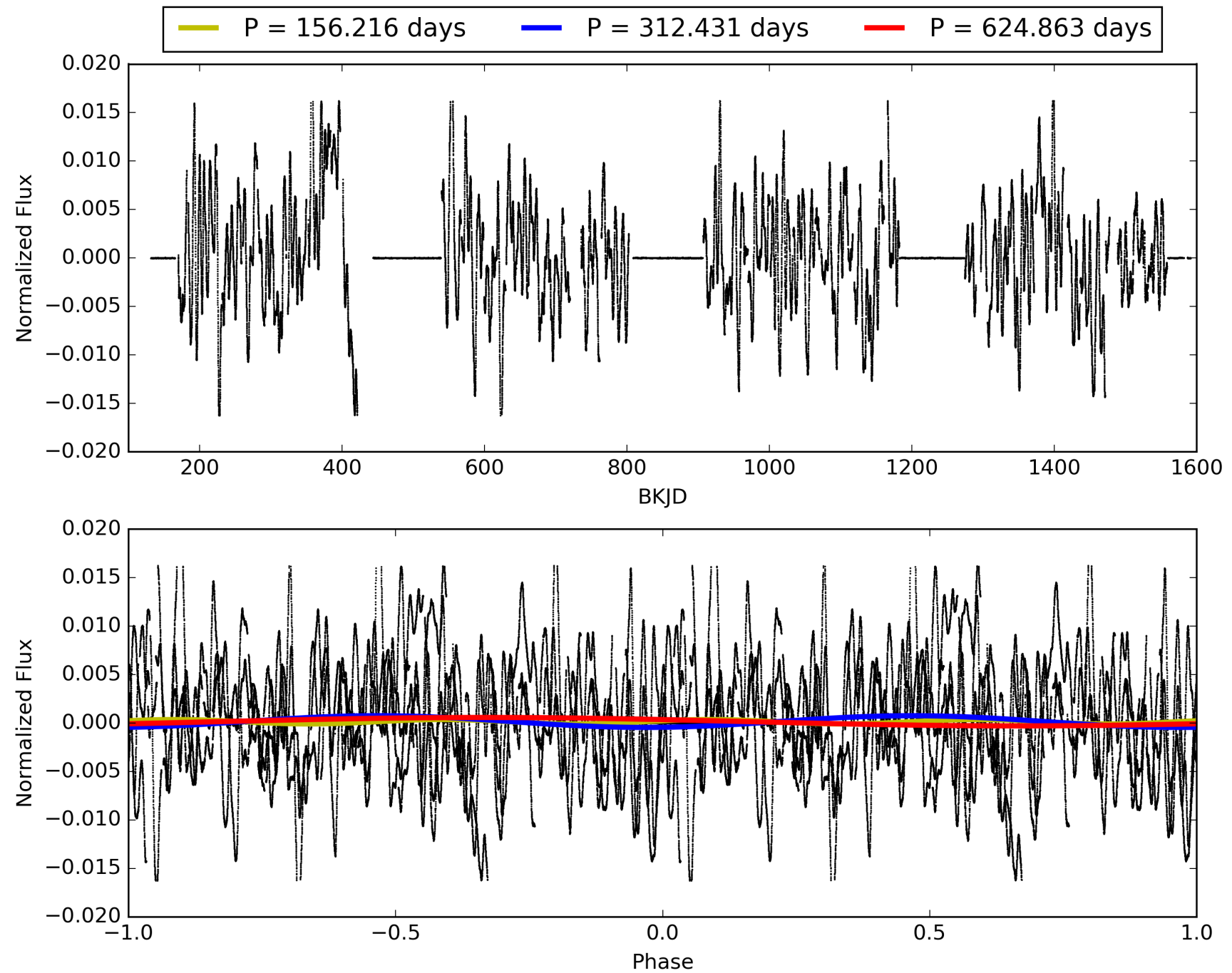
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:13:26 Z

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

TCE 007620801-03, PDC Light Curves

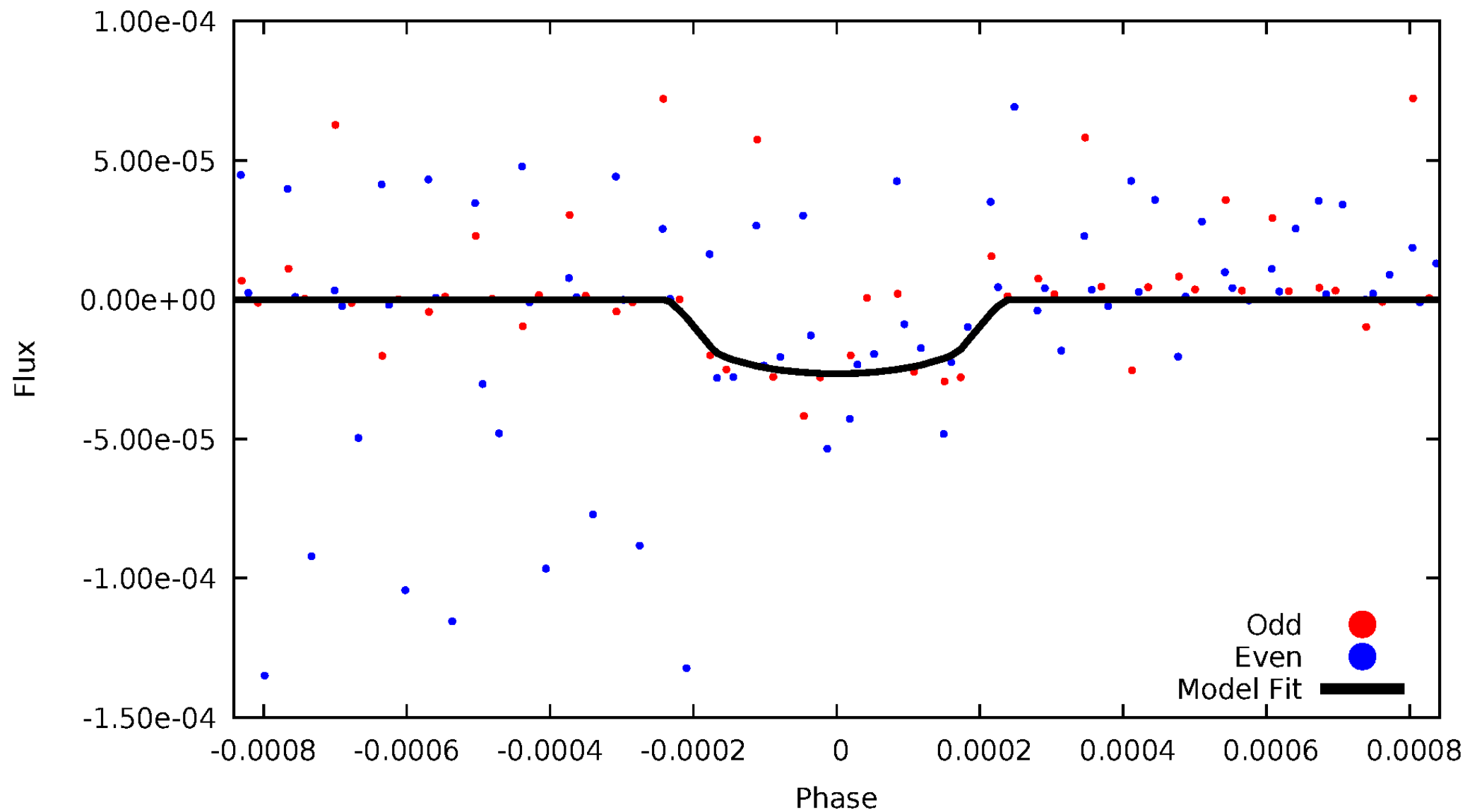


TCE 007620801-03



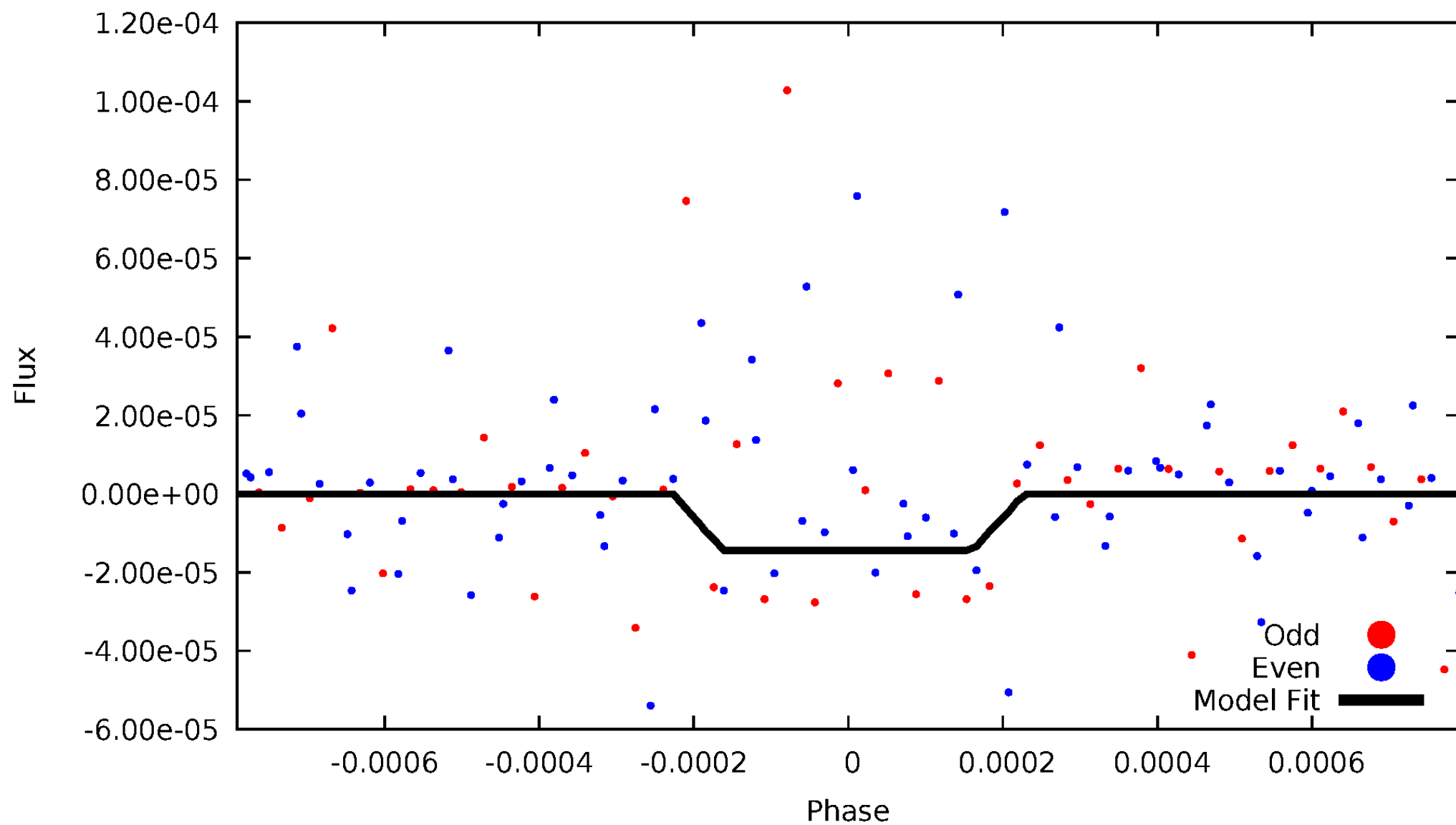
DV Odd/Even

TCE 007620801-03



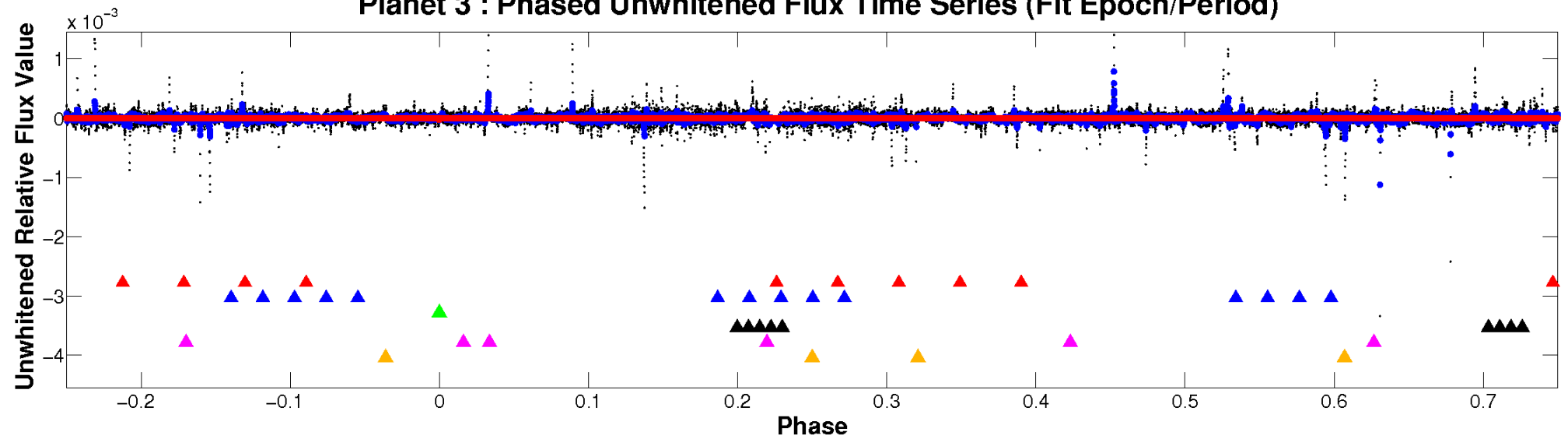
ALT Odd/Even

TCE 007620801-03

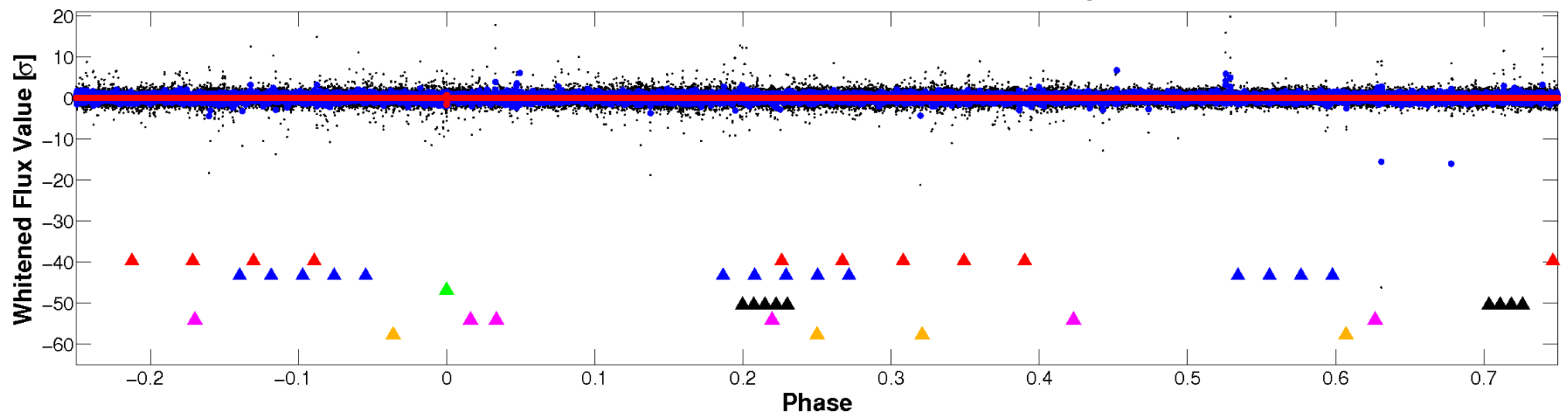


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

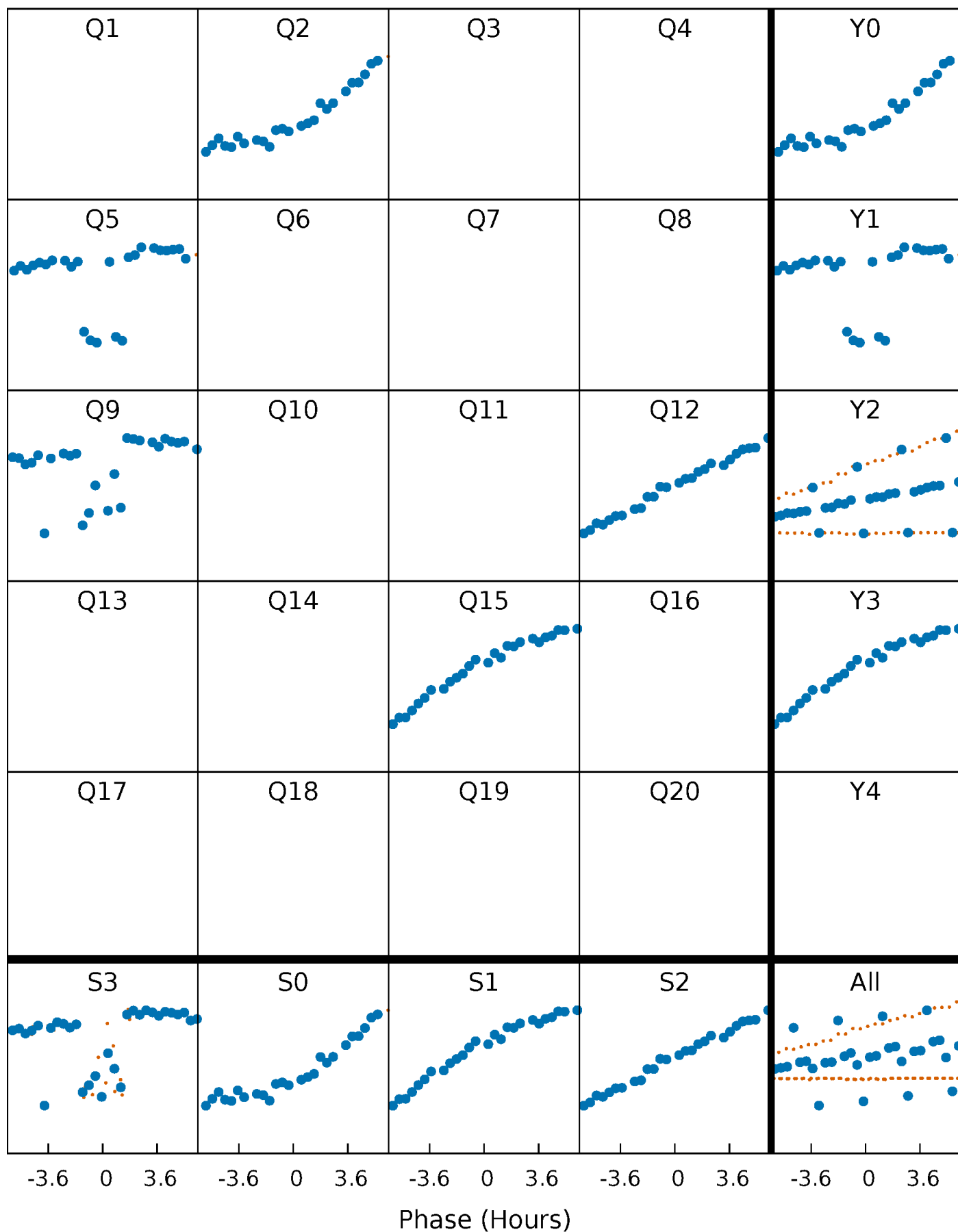


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



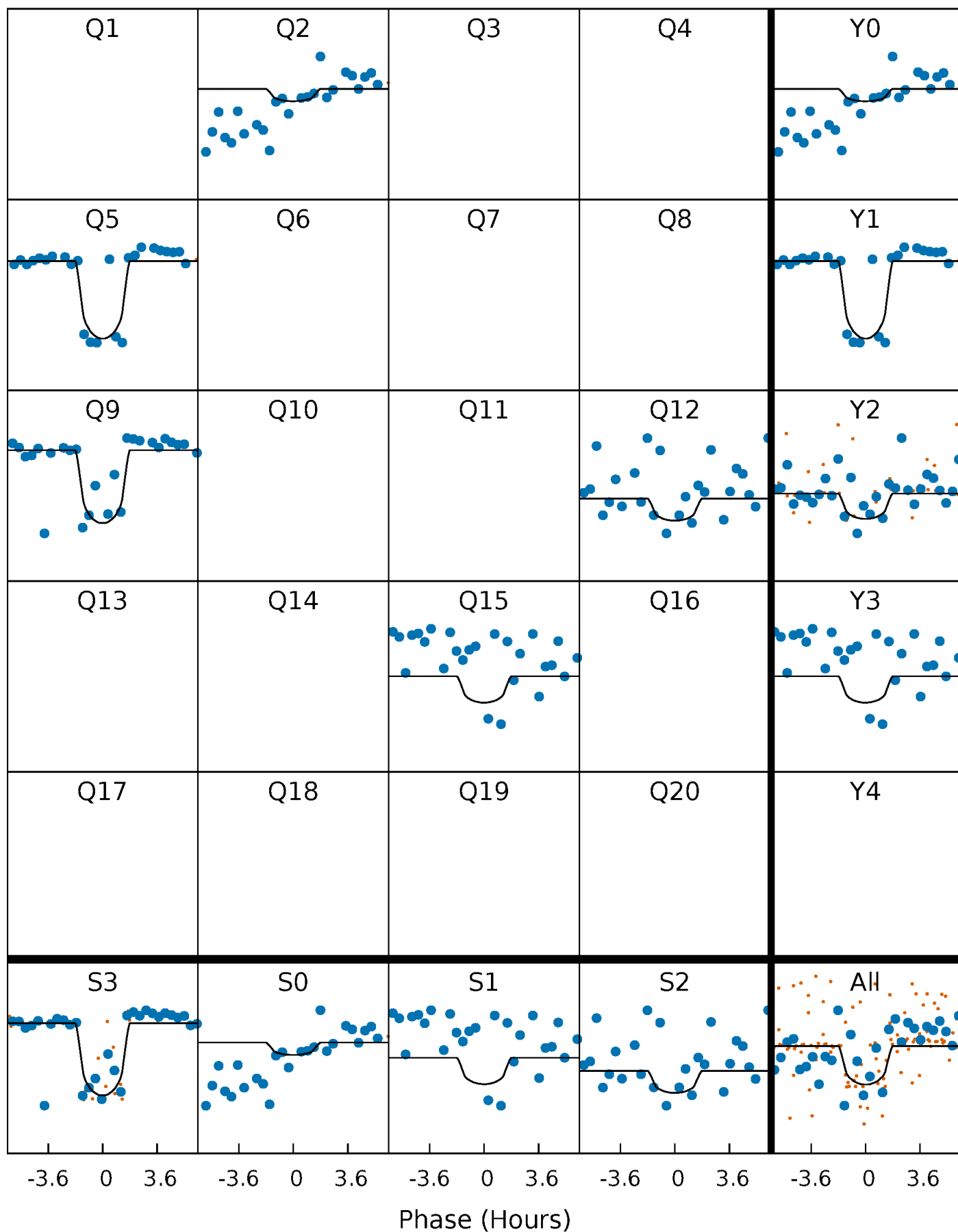
PDC Quarter-Phased Transit Curves

TCE 007620801-03 P=312.431315 Days $T_0=211.107481$ (BKJD)



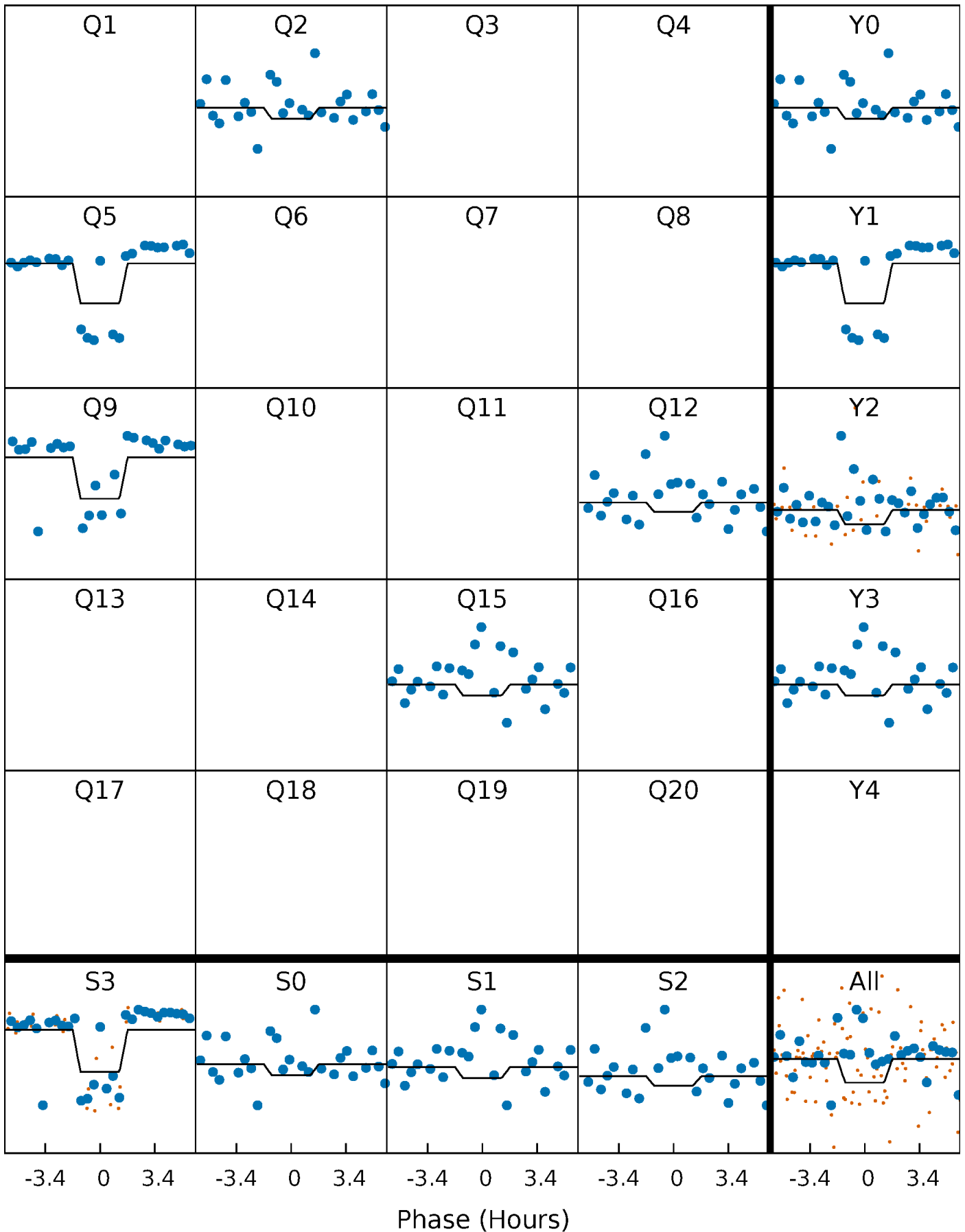
DV Quarter-Phased Transit Curves

TCE 007620801-03 P=312.431315 Days $T_0=211.107481$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

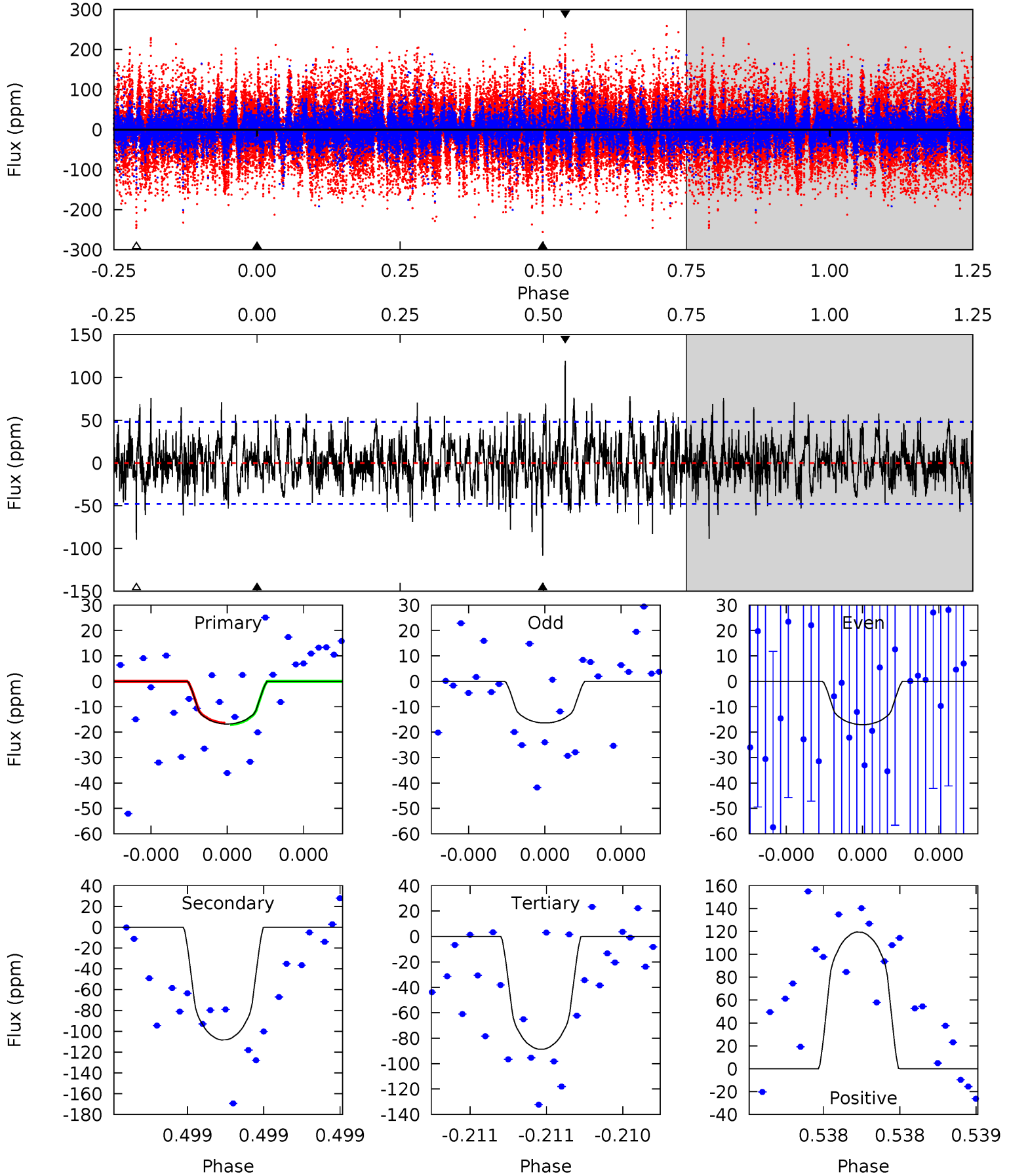
TCE 007620801-03 P=312.423174 Days $T_0=211.121897$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-03, P = 312.431315 Days, E = 211.107481 Days

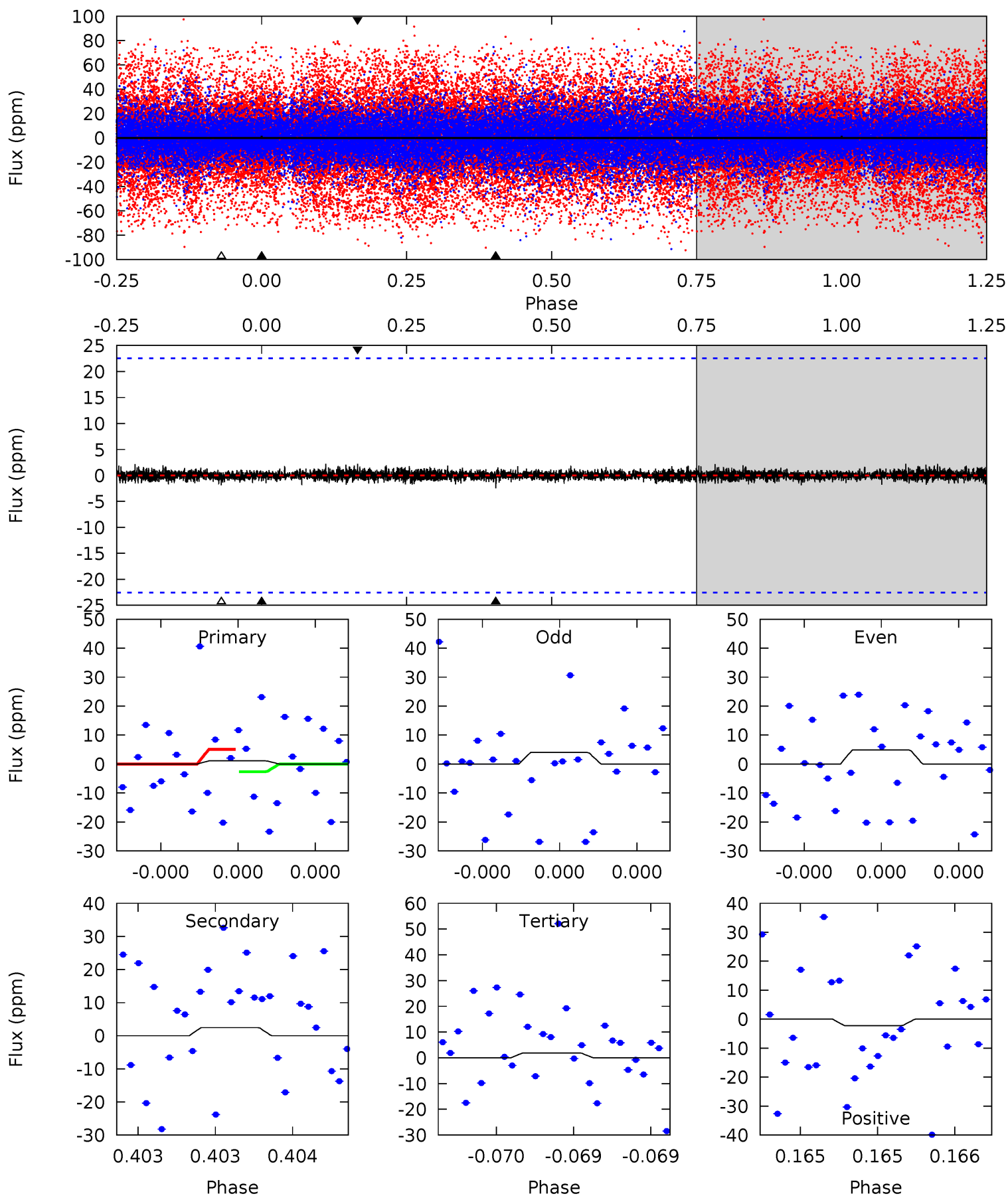
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.96	12.6	10.3	13.9	5.59	3.50	2.54	-8.38	-12.0	2.29	-1.29	0.03	0.78	0.52	0.03



Alt Model-Shift Uniqueness Test

007620801-03, P = 312.423174 Days, E = 211.121897 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.27	0.61	0.47	0.55	5.60	3.52	0.12	-0.20	-0.29	0.14	0.06	0.11	0.66	0.48	0.31



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-108 ± 9	$43.43^{+20.25}_{-20.55}$	1845^{+49}_{-63}	4678^{+1609}_{-629}	37^{+91}_{-20}
Alt.	-2 ± 4	$28.65^{+19.77}_{-16.65}$	1846^{+57}_{-61}	2701^{+1078}_{-5469}	$1.449^{+10.517}_{-2.485}$

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 $A_{obs} \gg 1.0$

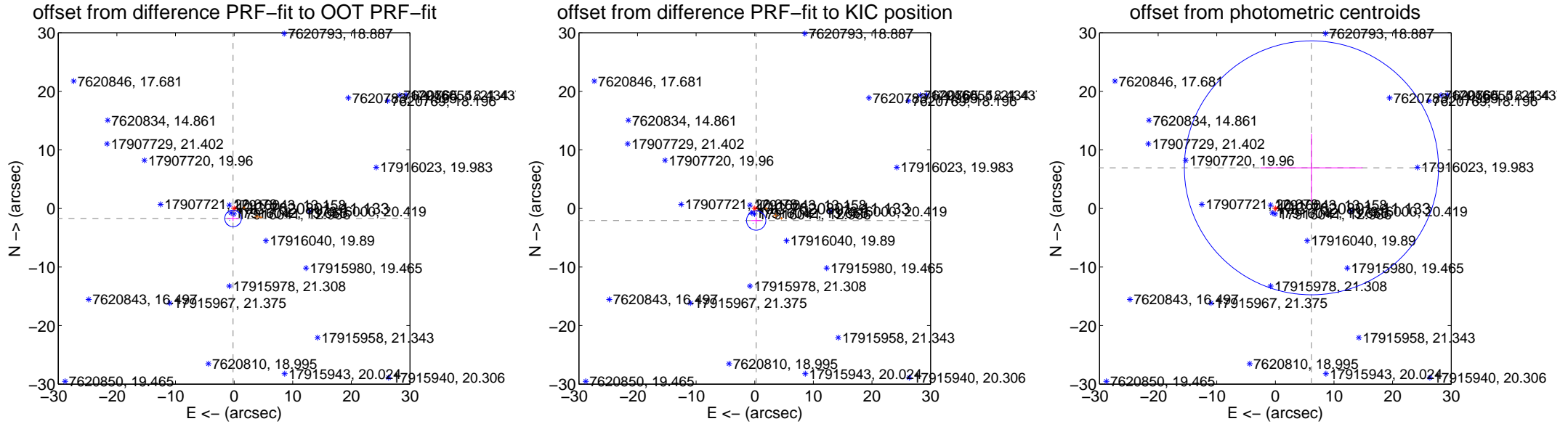
DV Centroid Data

Supplemental centroid analysis for 007620801-03. **Kepler magnitude: 11.13.** Transit SNR 10.56

There are 1 quarters with good PRF difference image offsets

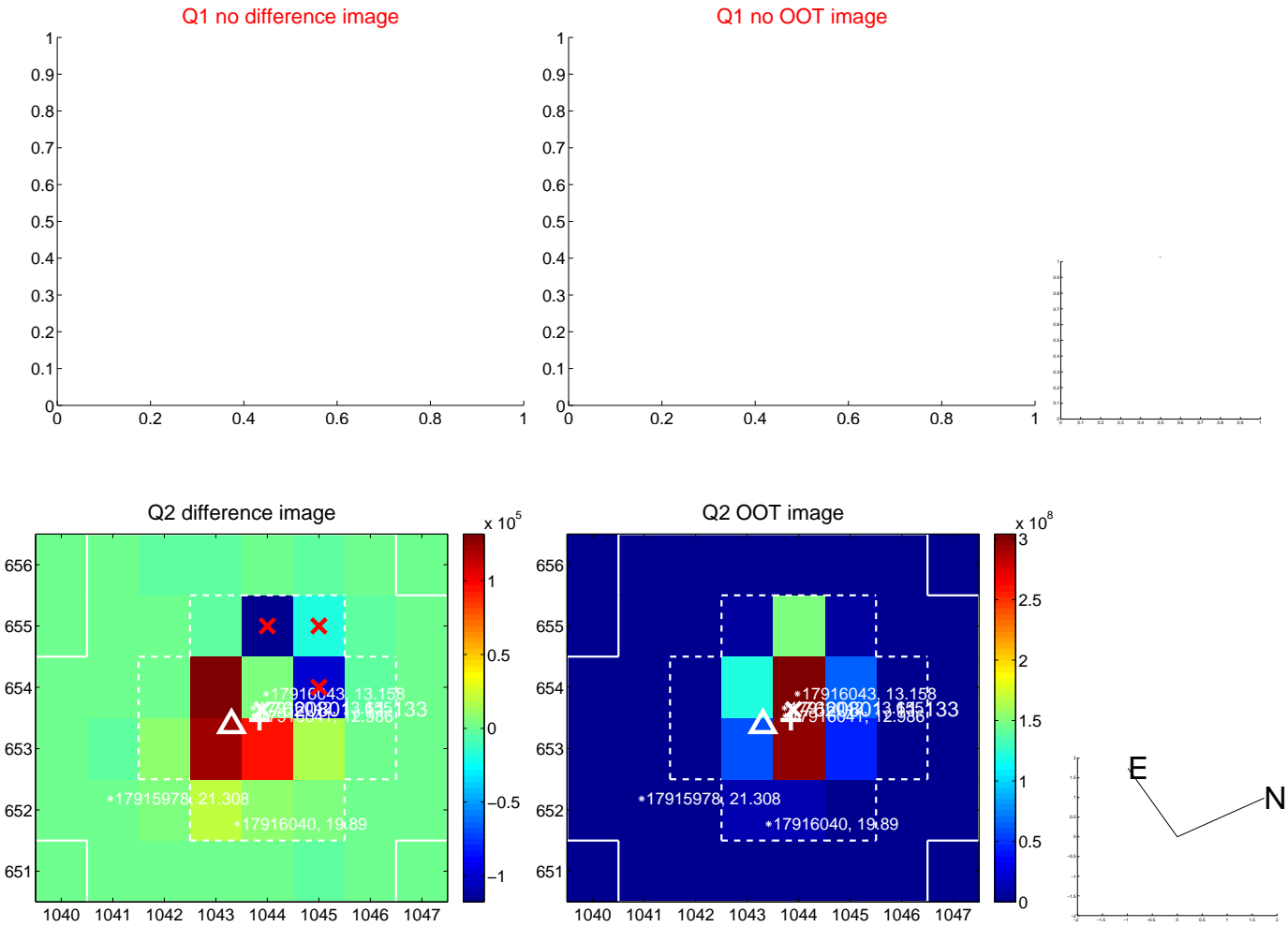
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.716 ± 0.472	3.63	0.178 ± 0.976	-1.707 ± 0.455
PRF-fit source offset from KIC position	2.080 ± 0.550	3.78	-0.248 ± 0.873	-2.065 ± 0.544
photometric centroid source offset	9.27 ± 7.23	1.28	-6.15 ± 8.72	6.93 ± 5.79

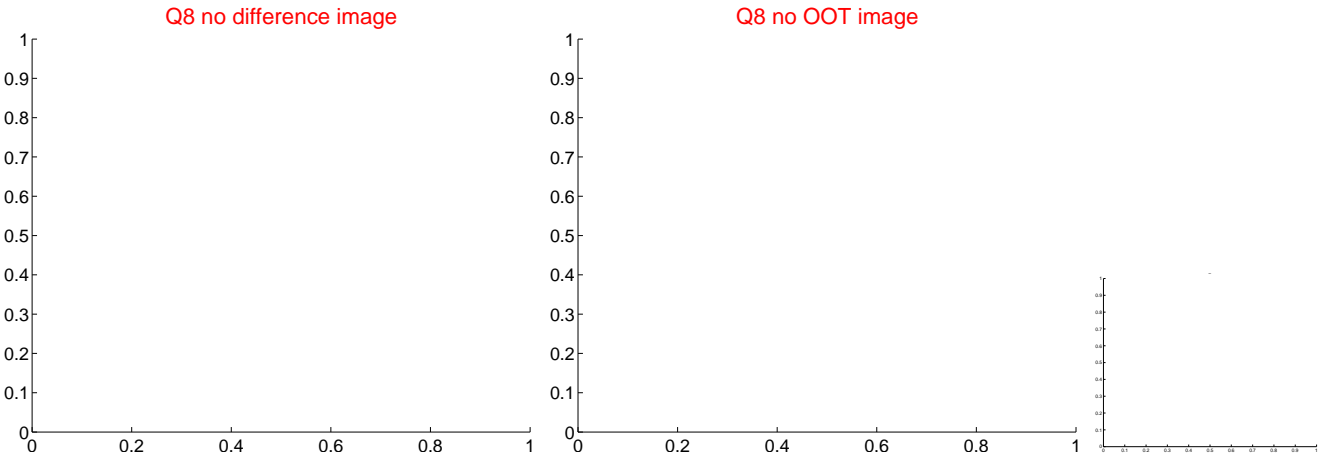
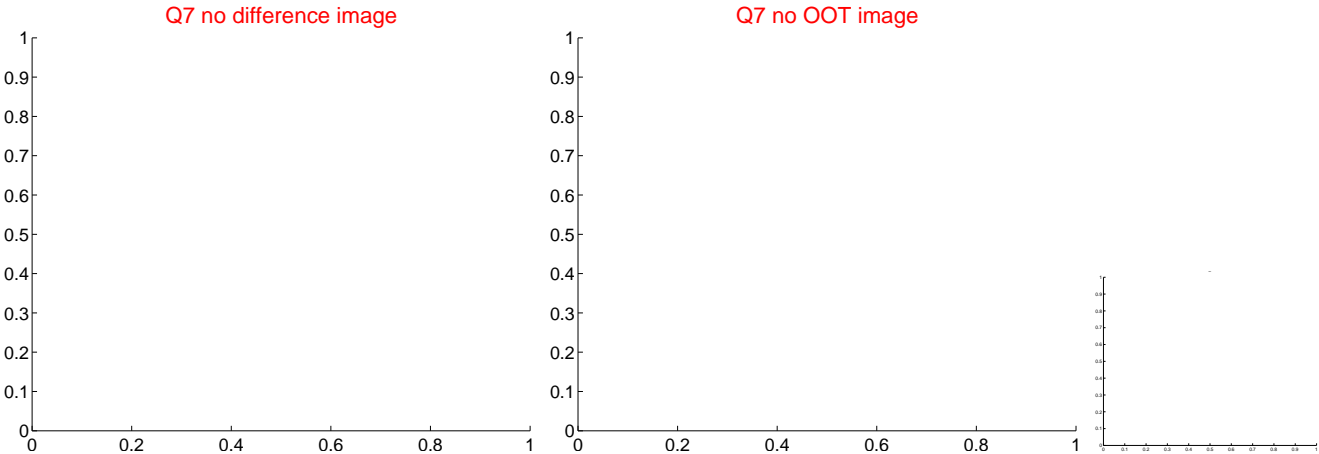
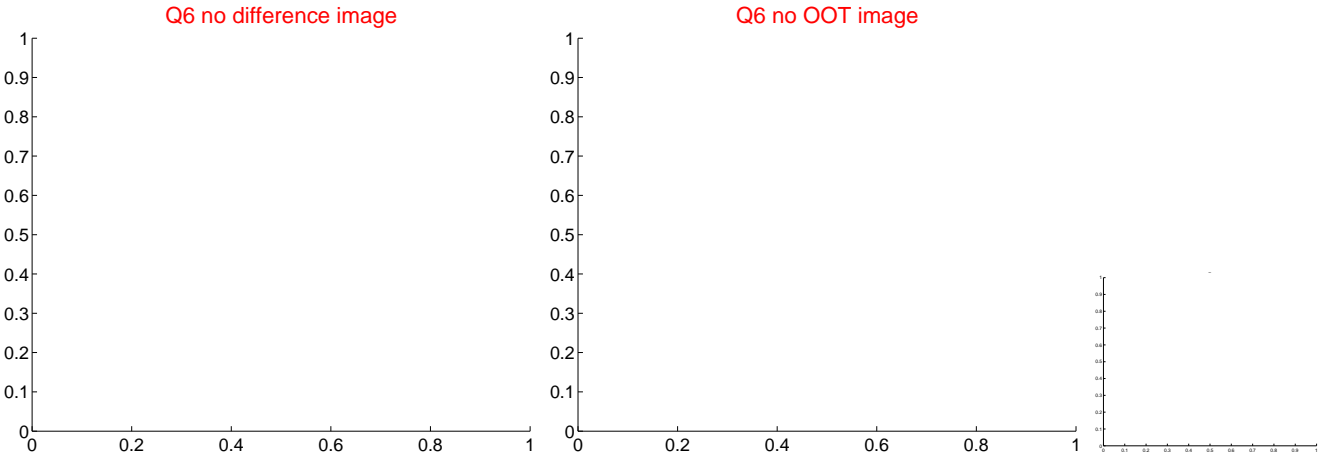
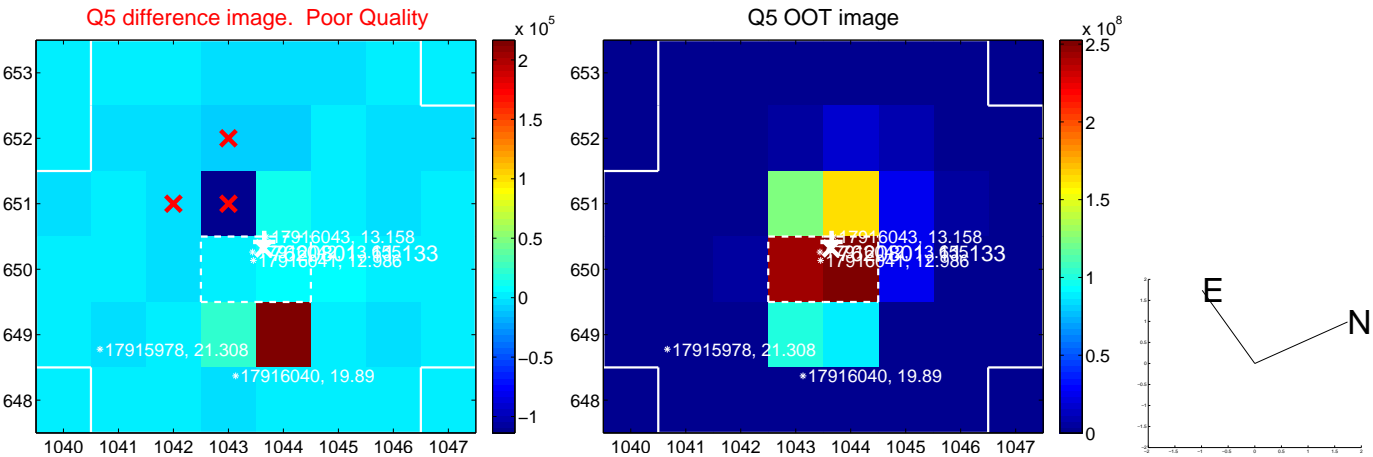


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

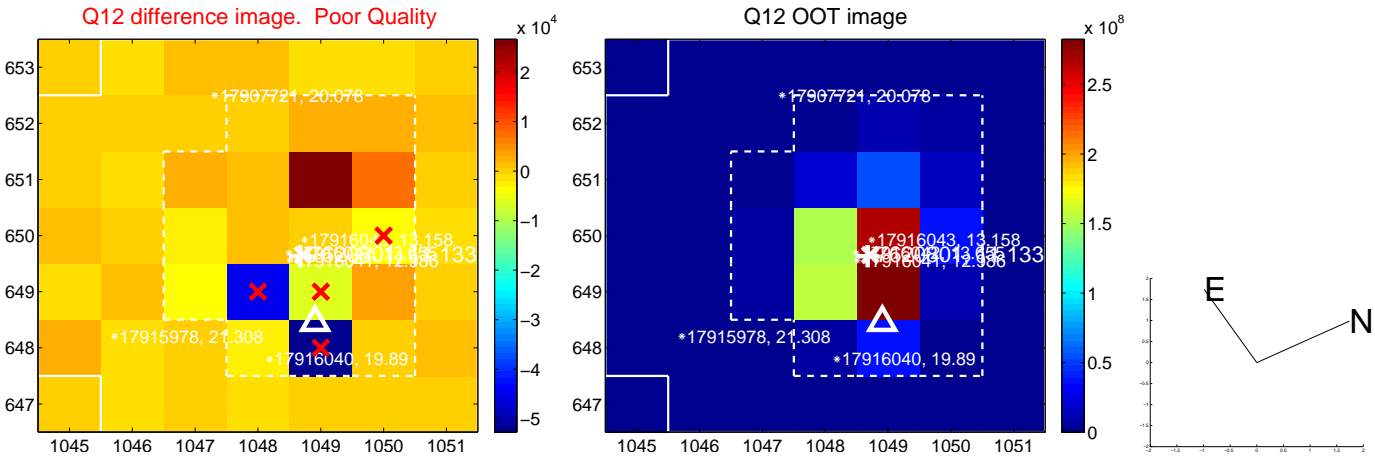
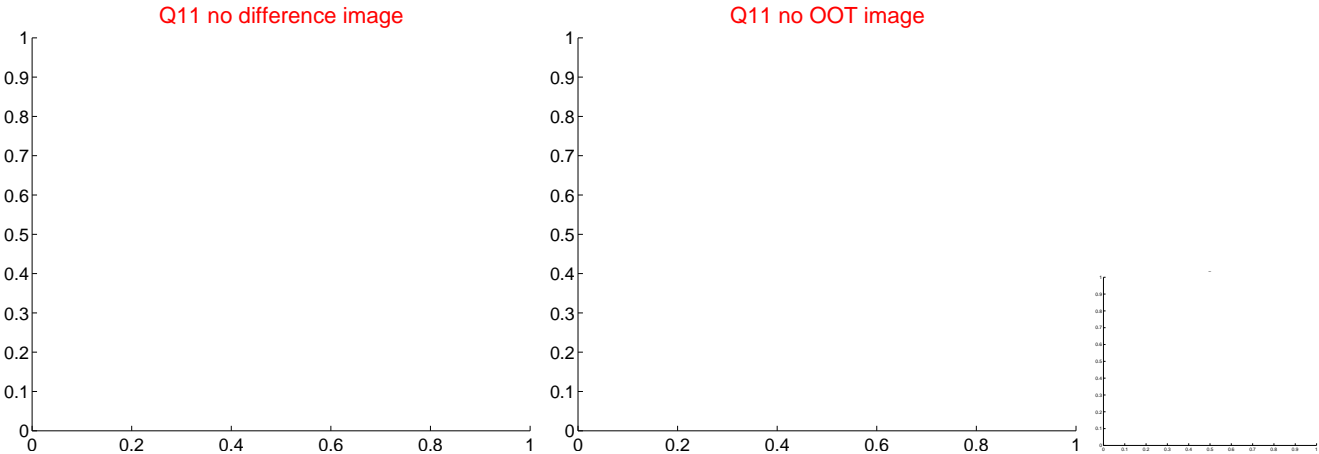
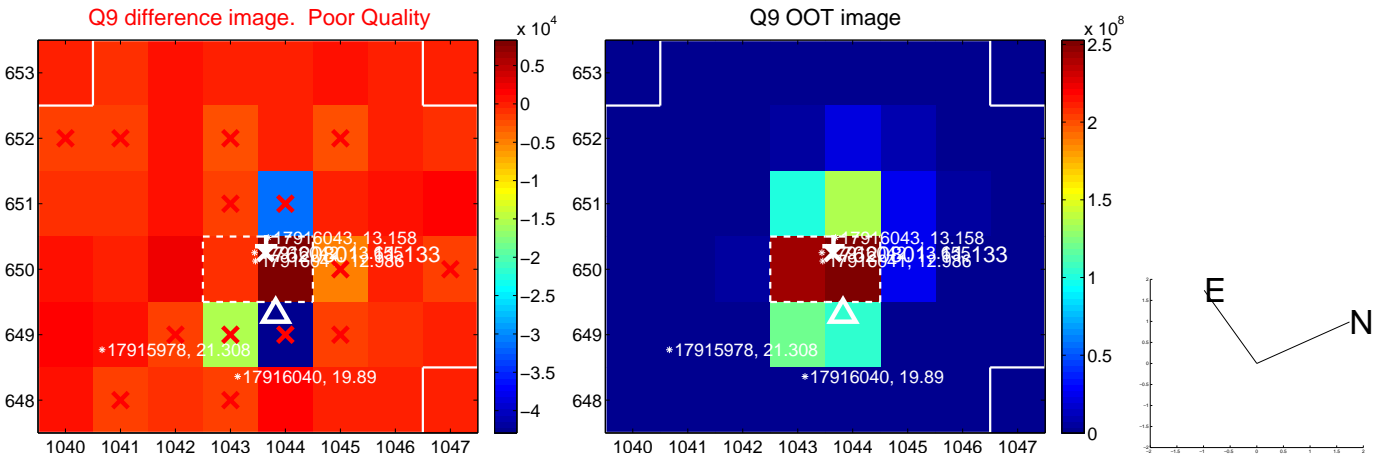
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



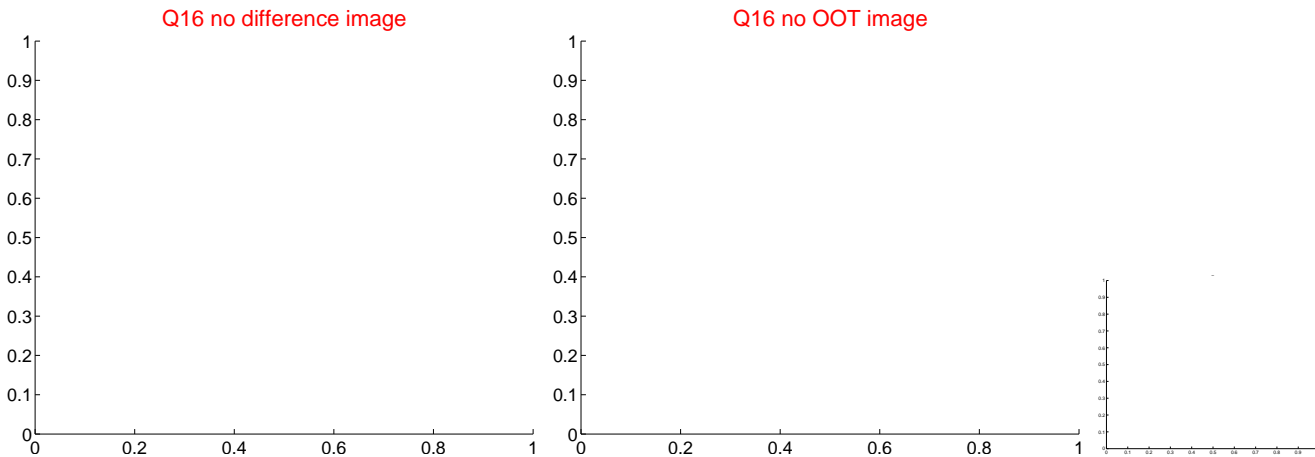
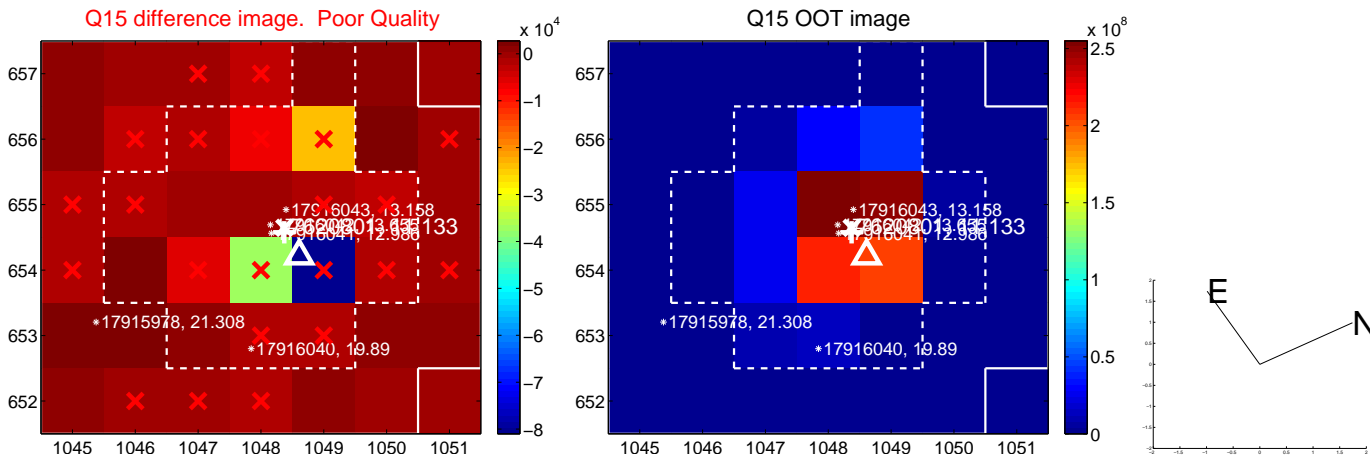
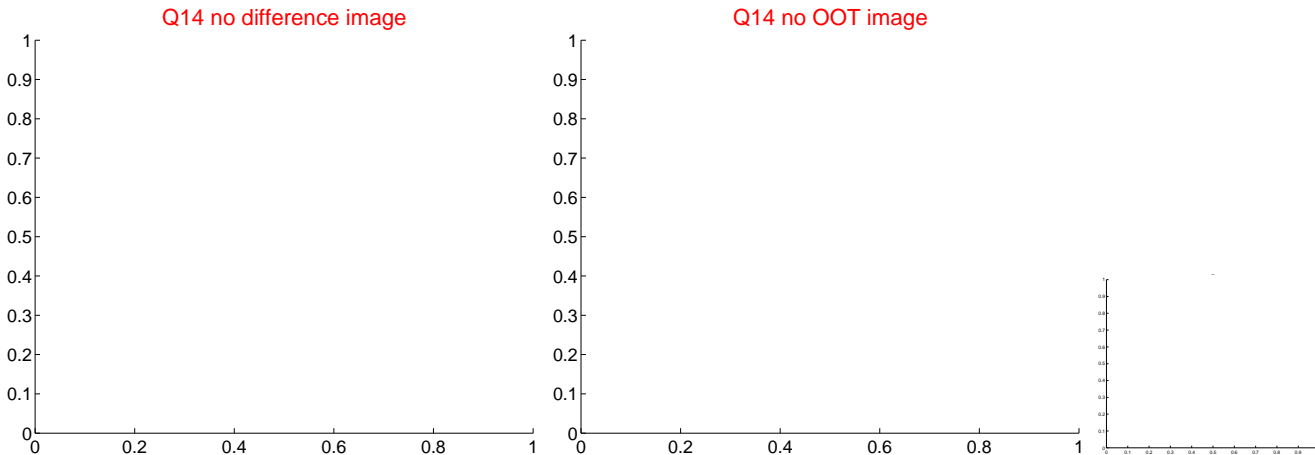
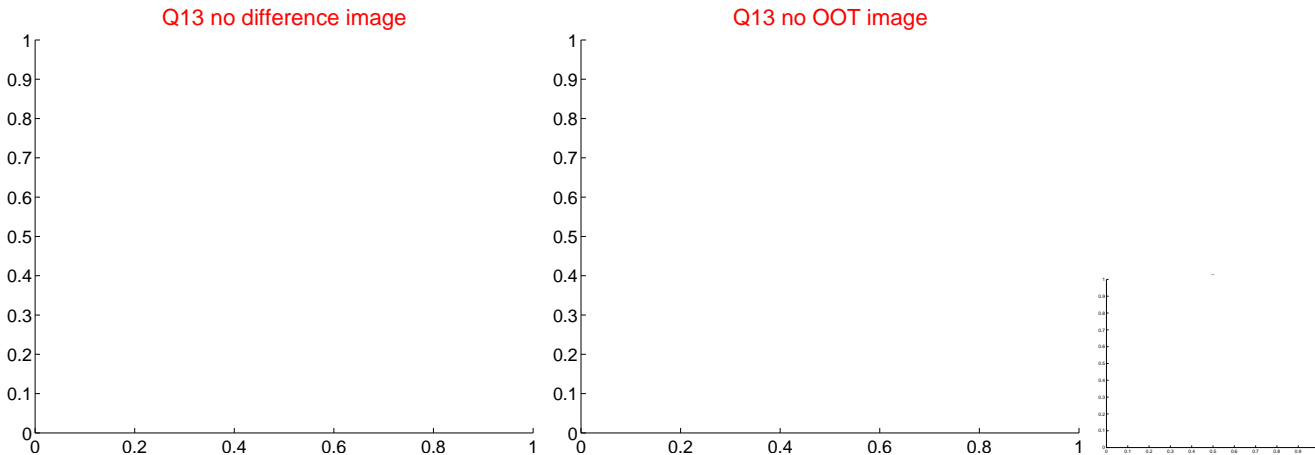
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



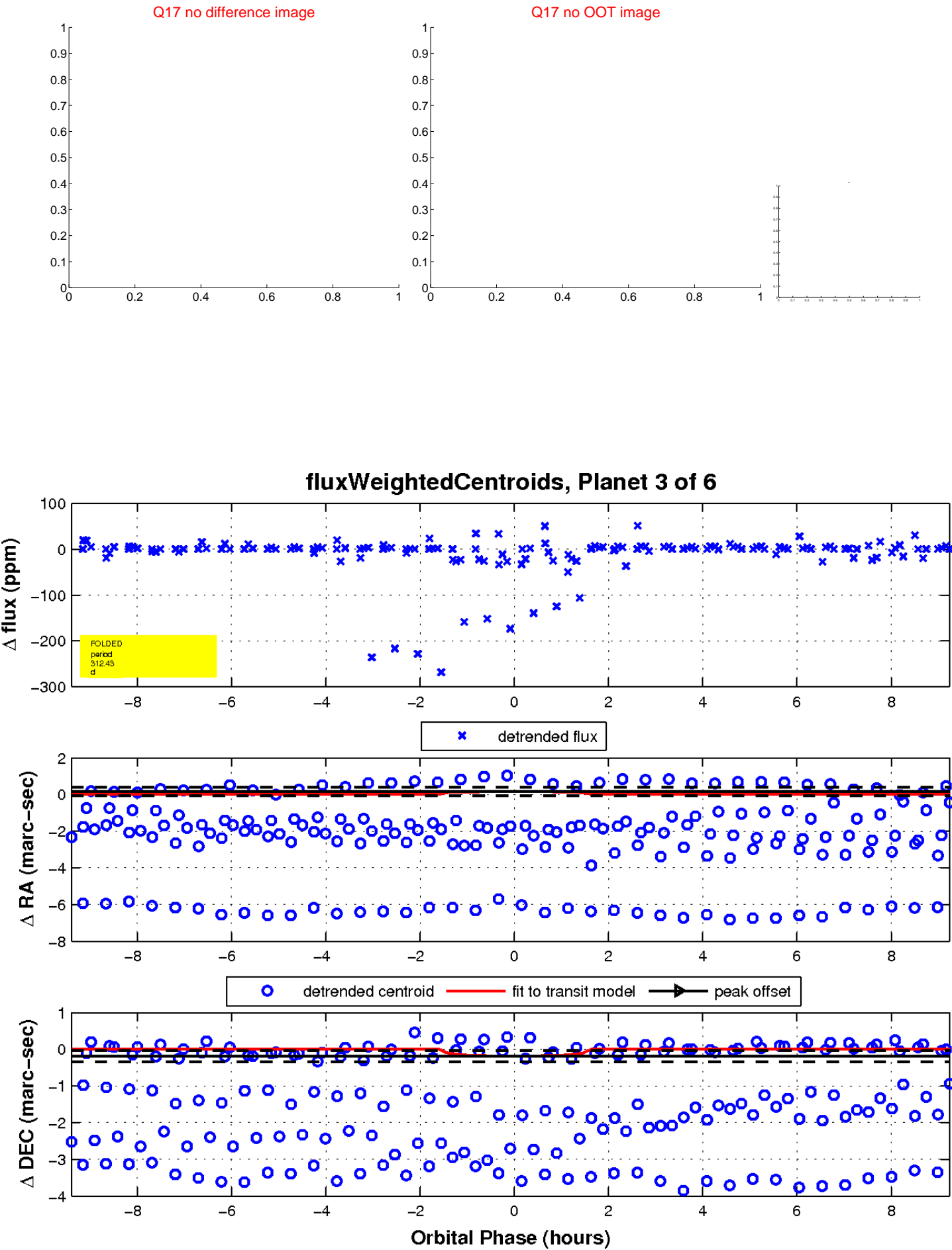
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

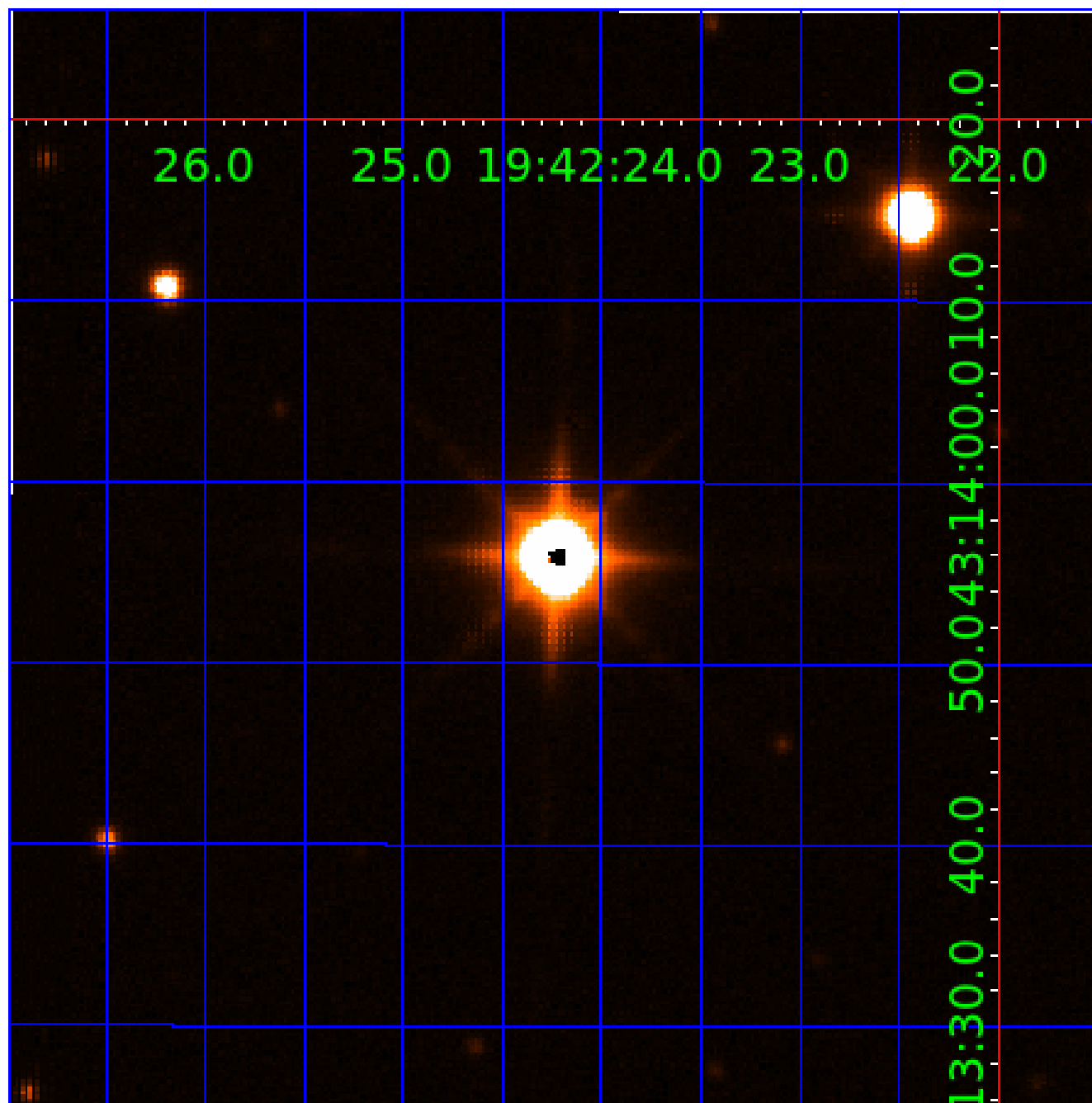


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
007620801-02	OBS	No	101.930288	194.044319	28.8	1.497	11.3	7.3	67.95	3839	34.08	3272.13
007620801-03	OBS	No	312.431315	211.107481	26.5	3.154	10.2	10.6	67.95	3839	44.21	734.90
007620801-04	OBS	No	155.036231	282.950918	49.2	15.000	7.9	-1.0	67.95	3839	44.28	1870.64
007620801-05	OBS	No	248.853873	221.614121	22.9	5.791	8.7	9.2	67.95	3839	41.25	995.35
007620801-06	OBS	No	423.961891	289.227453	29.7	14.963	8.3	6.6	67.95	3839	44.79	489.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

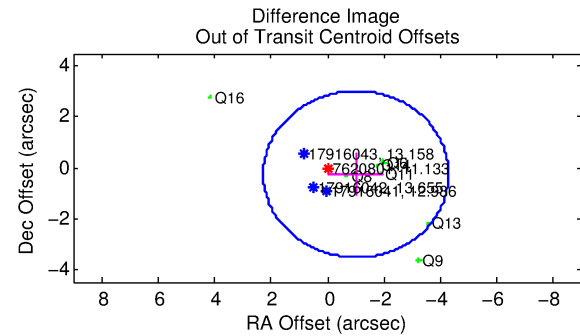
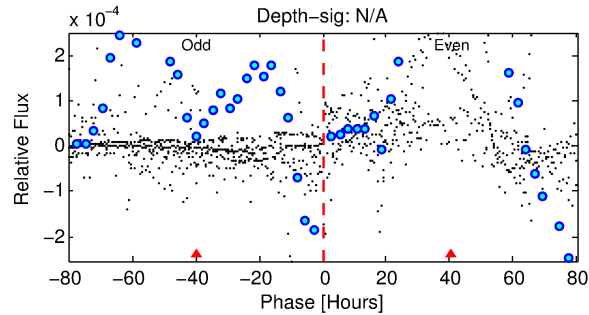
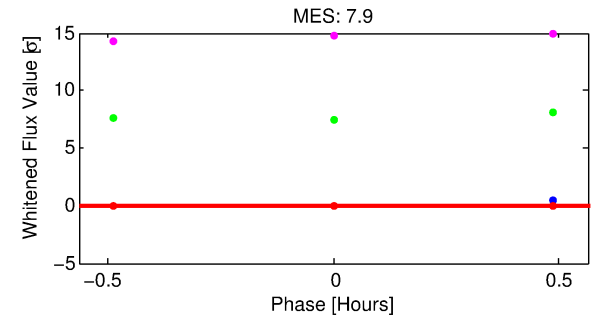
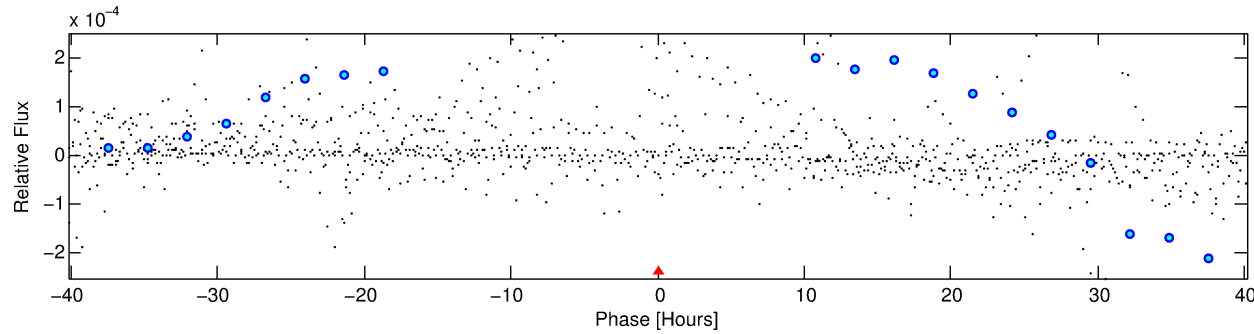
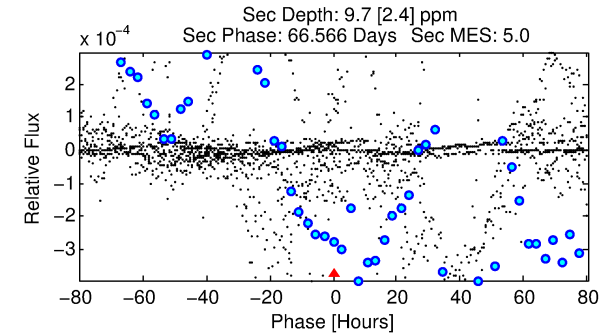
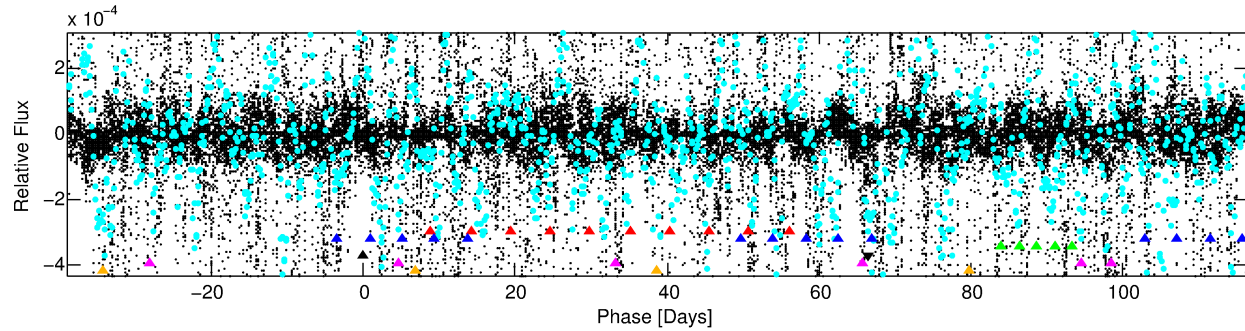
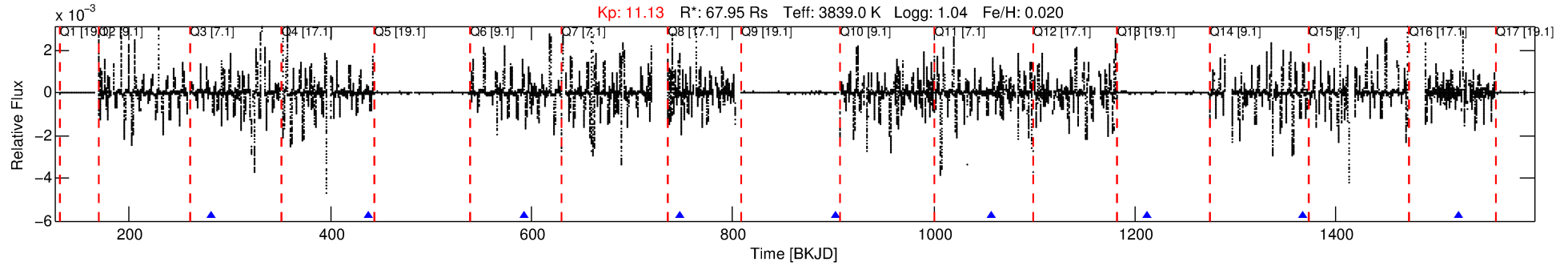
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-04

No Significant Match Found

DV One-Page Summary

KIC: 7620801 Candidate: 4 of 6 Period: 155.036 d



TPS TCE Results:

Period = 155.03623 d
Epoch = 282.9509 BKJD

DV fit results are unavailable

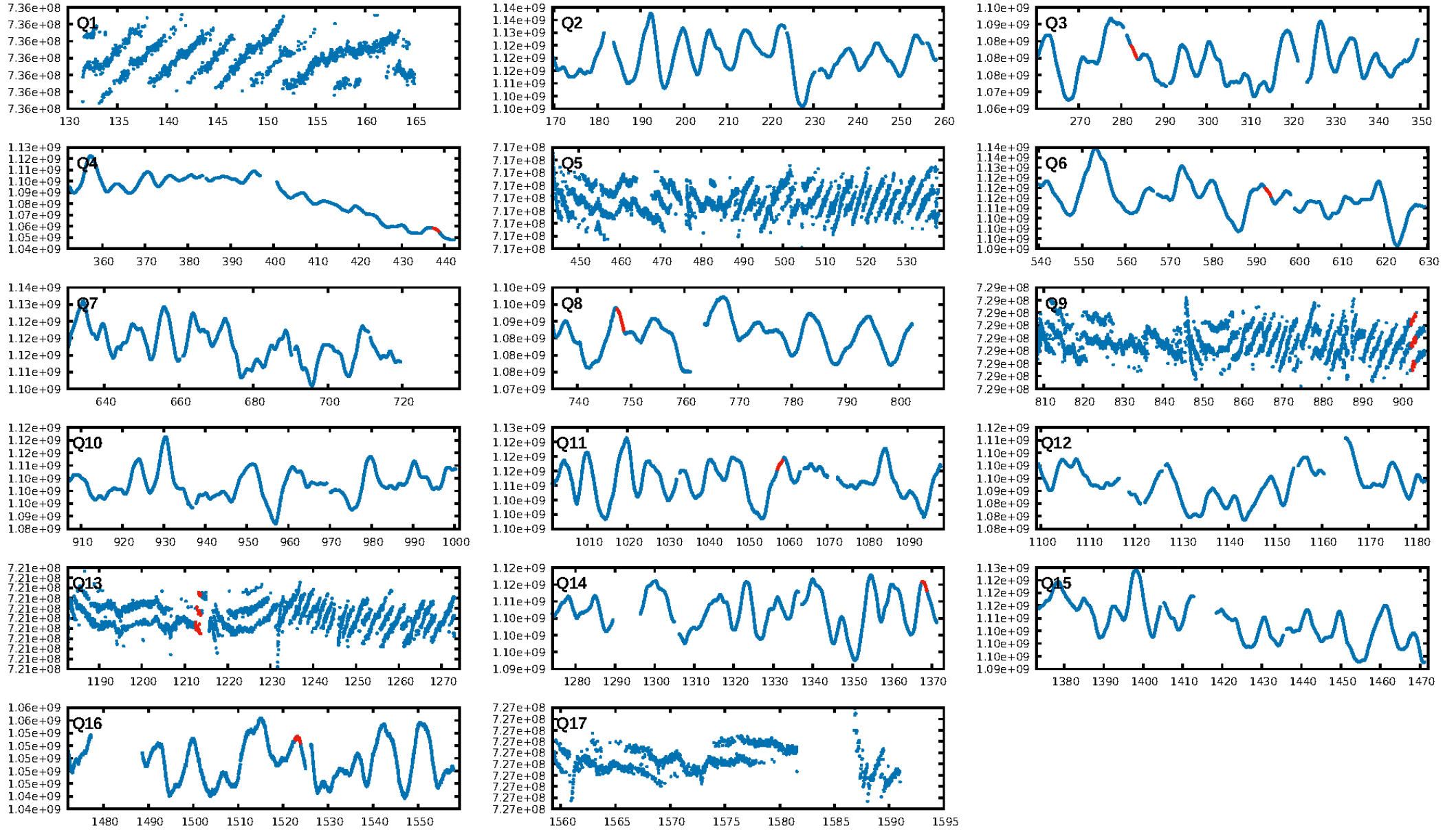
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.60 σ]
LongPeriod-sig: 100.0% [140.03 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.37e-07
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.041 arcsec [0.95 σ]
KicOffset-rm: 1.334 arcsec [1.11 σ]
OotOffset-st: 2/1/2/2 [7]
KicOffset-st: 2/1/2/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.86 [6/7]

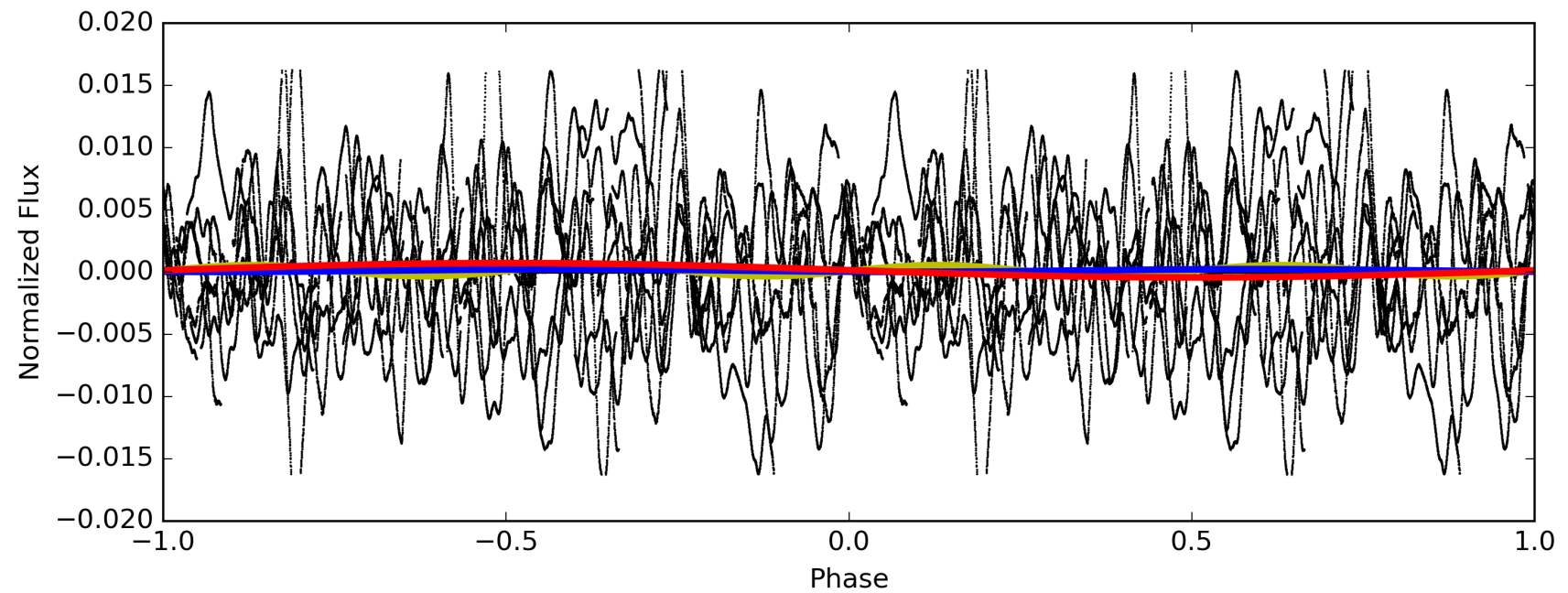
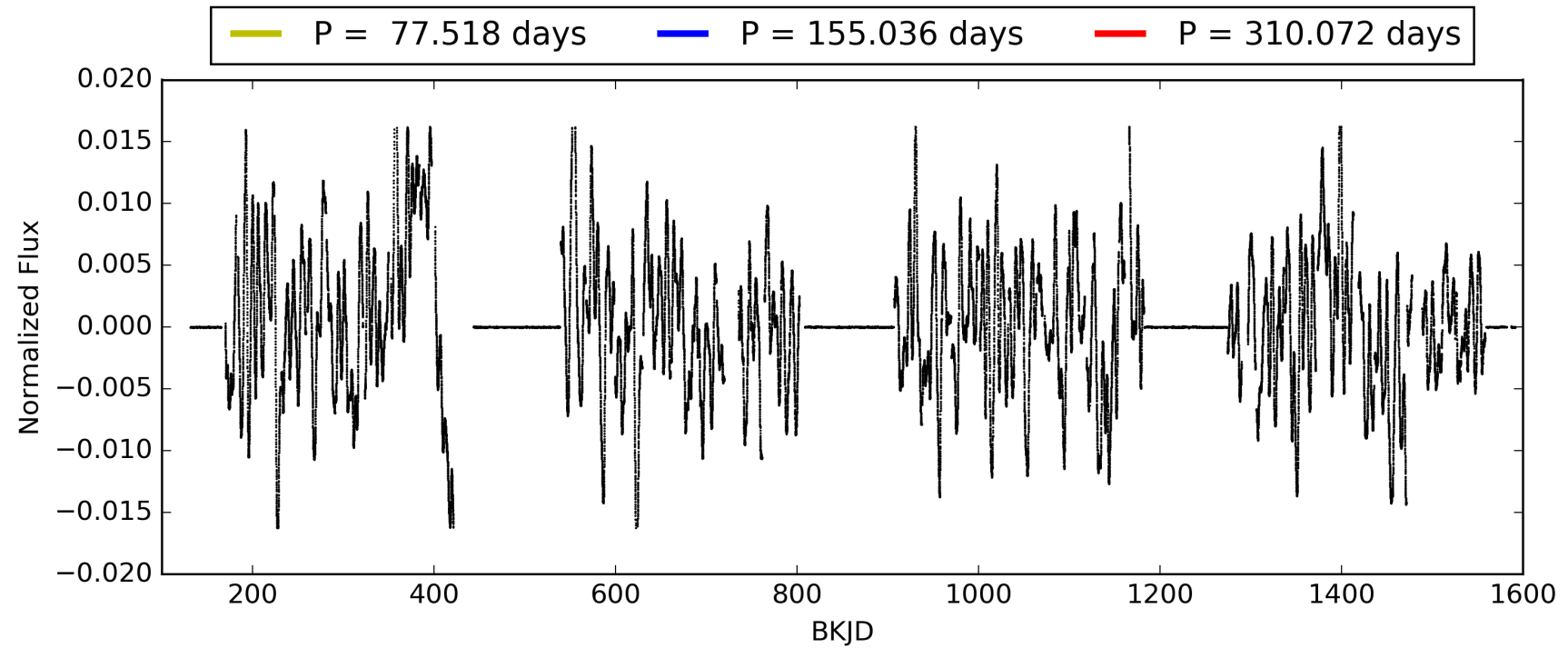
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:13:32 Z

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

TCE 007620801-04, PDC Light Curves

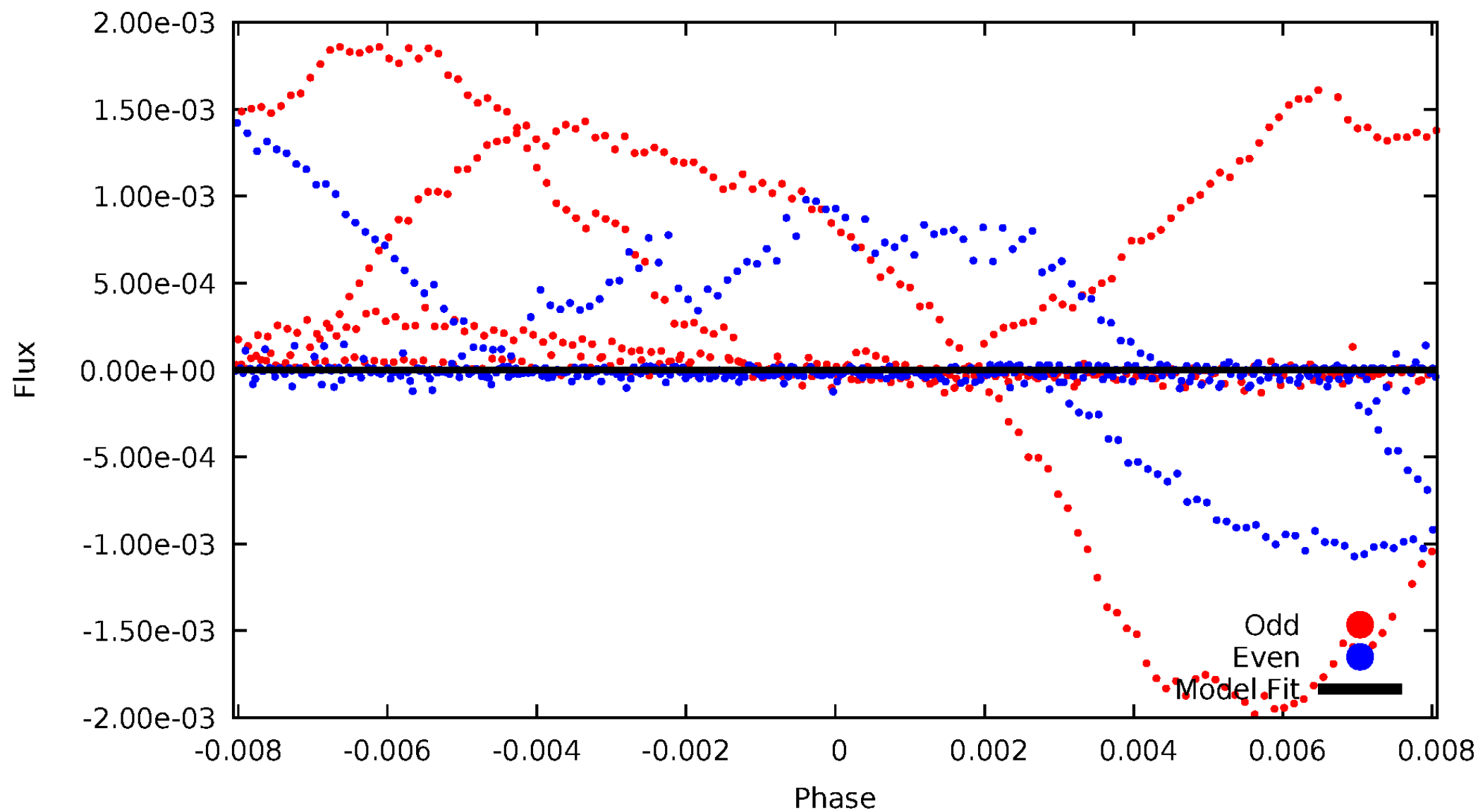


TCE 007620801-04



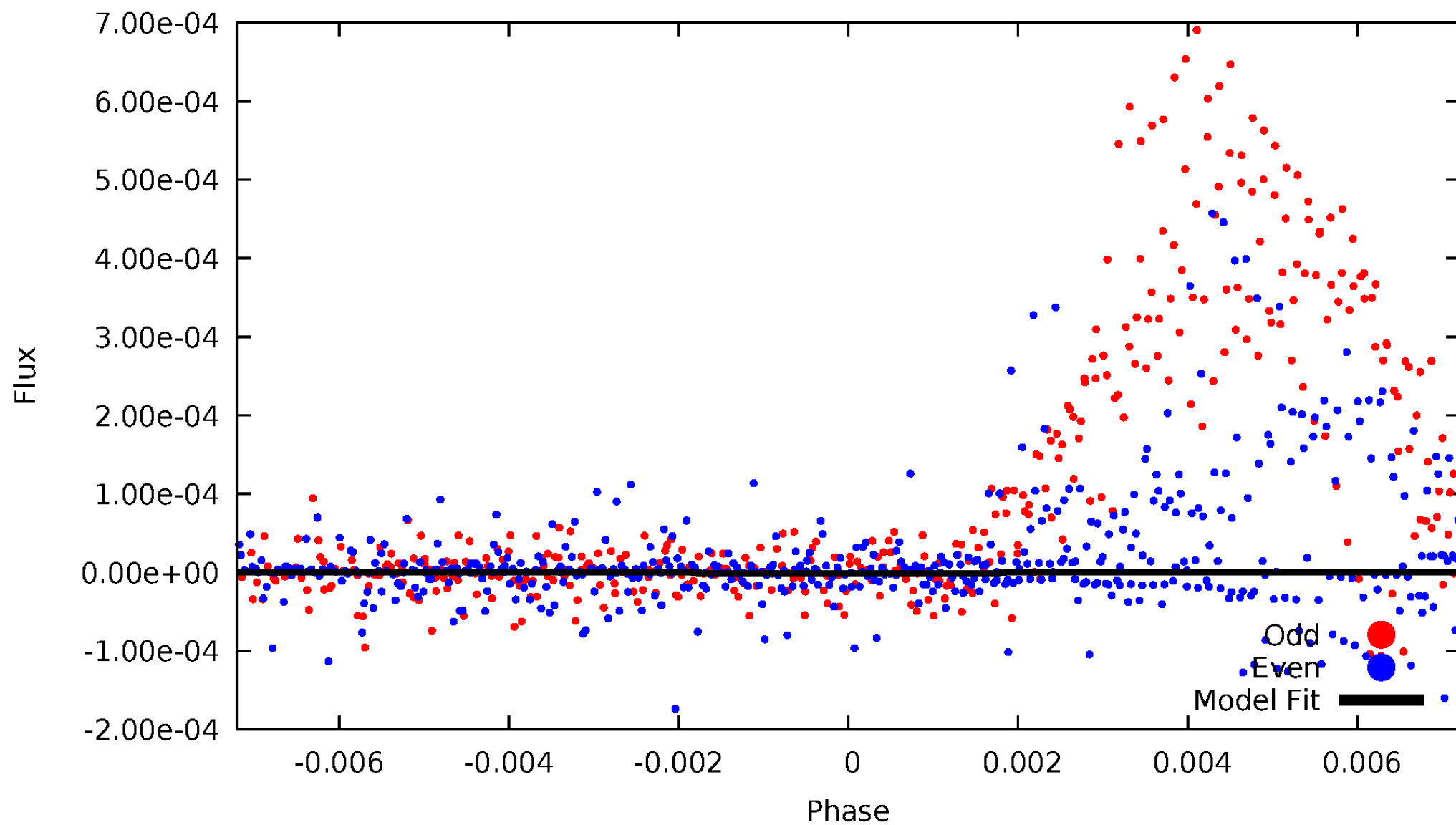
DV Odd/Even

TCE 007620801-04



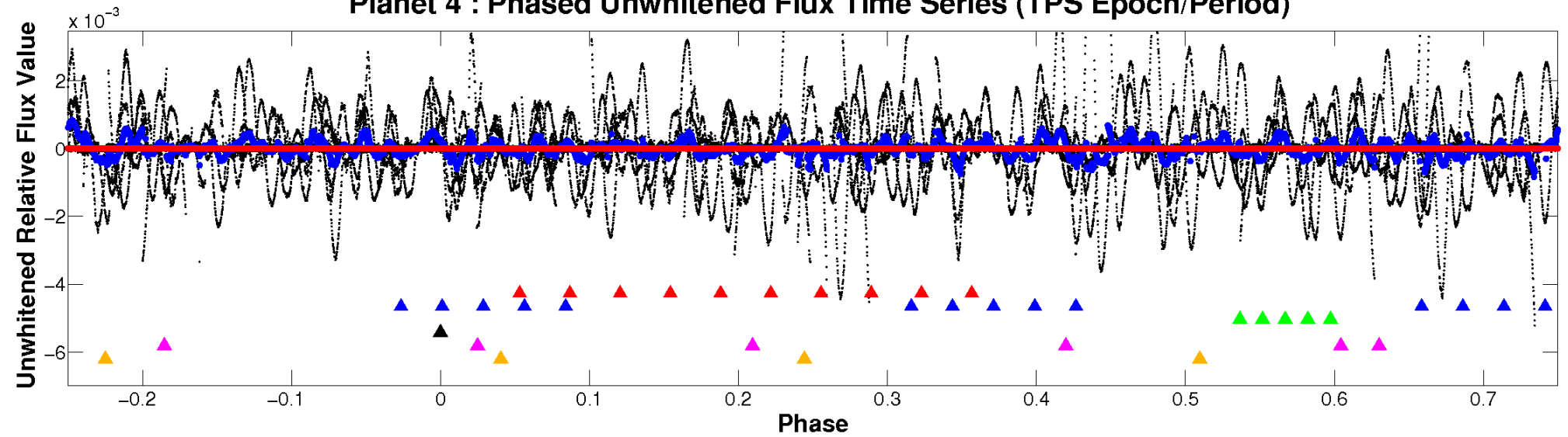
ALT Odd/Even

TCE 007620801-04

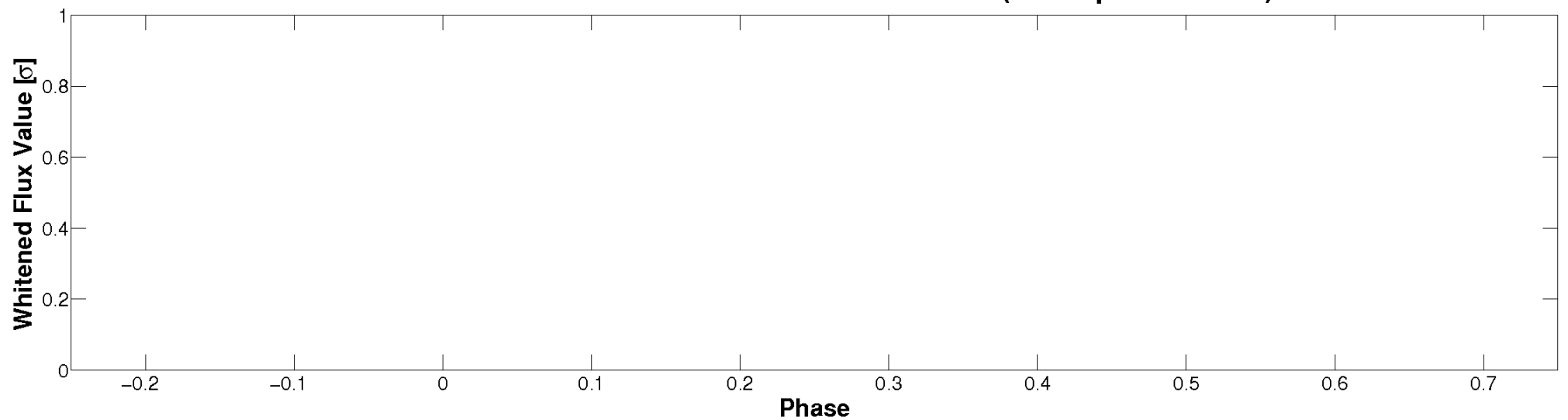


Non-Whitened Vs. Whitened Light Curve

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

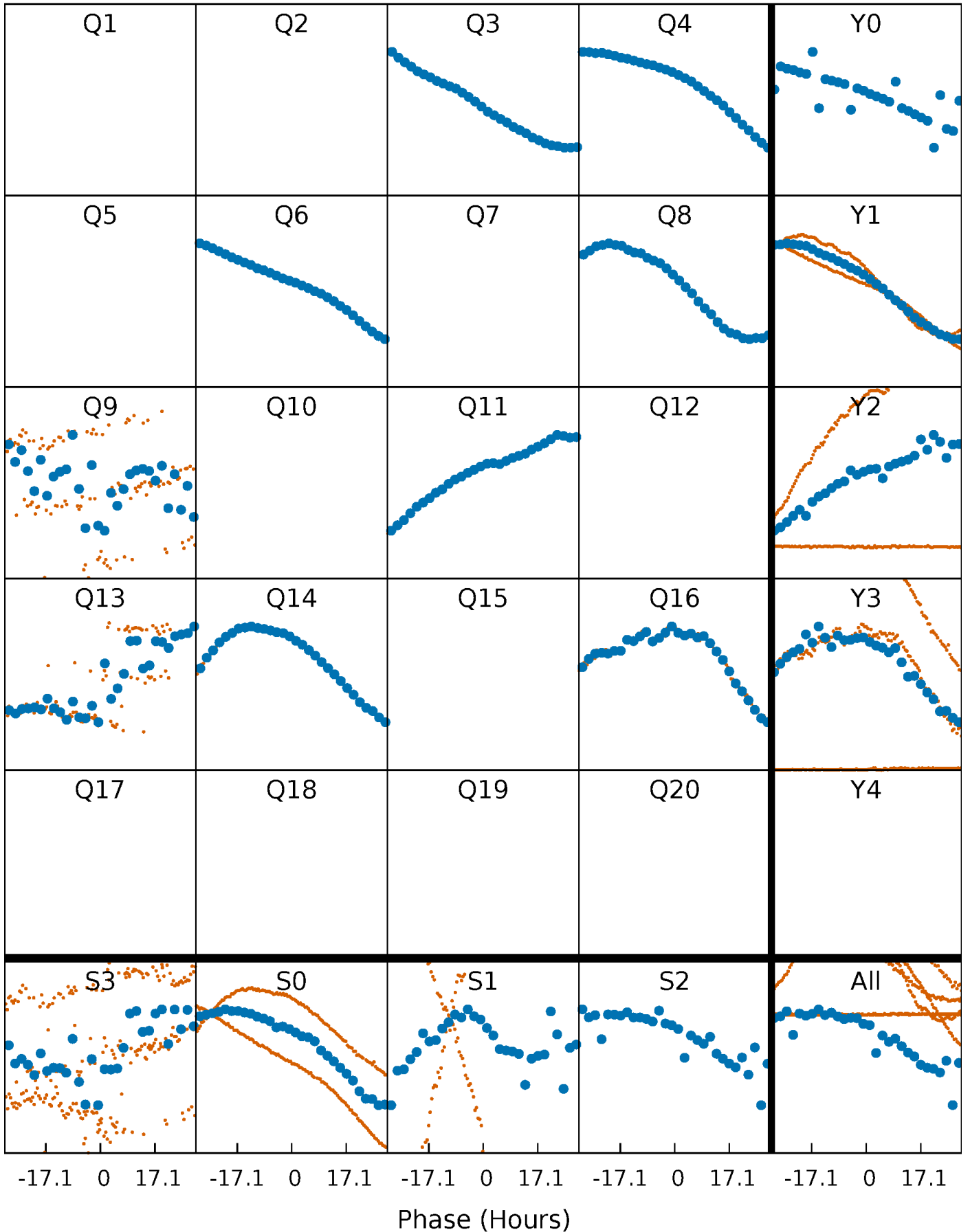


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



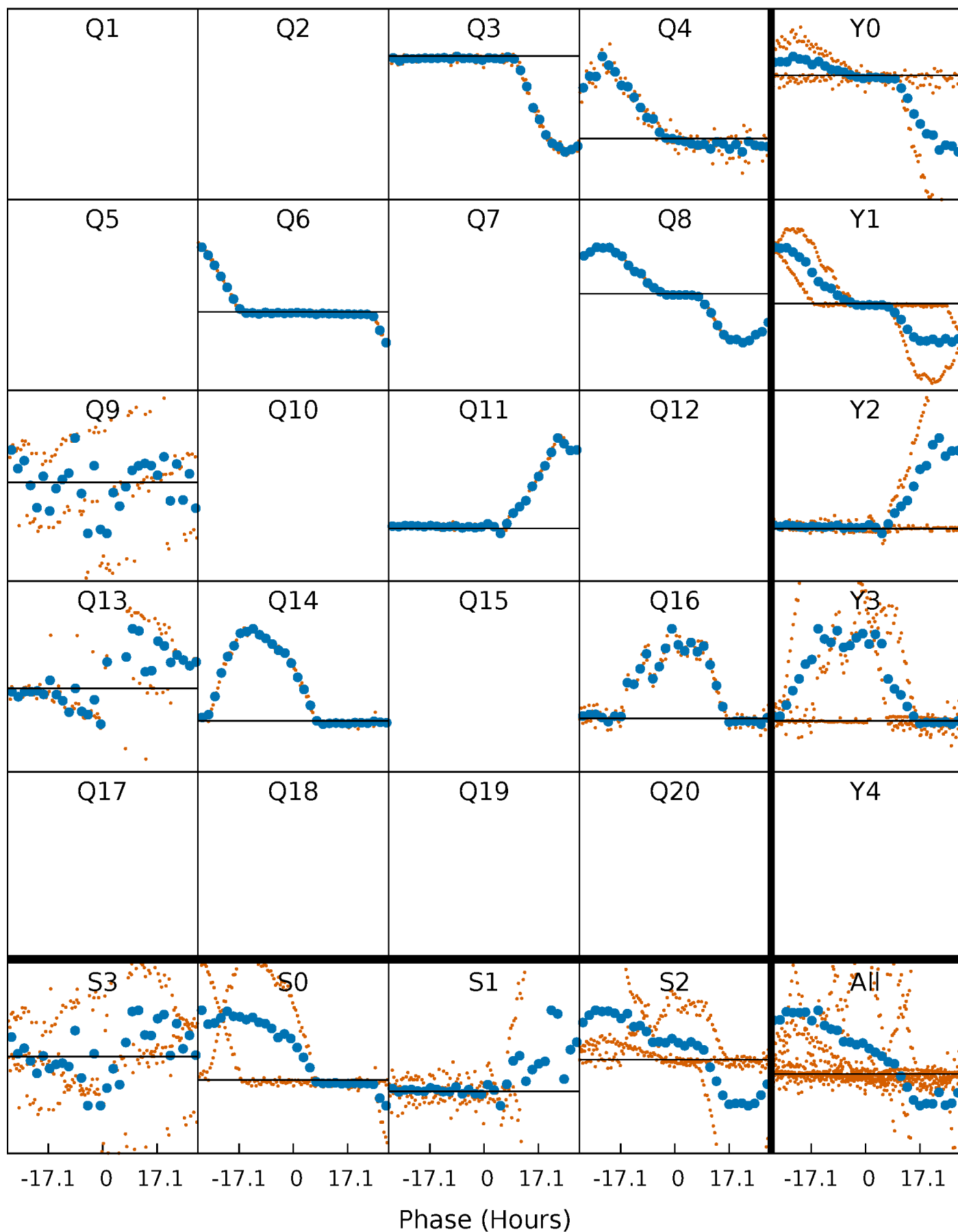
PDC Quarter-Phased Transit Curves

TCE 007620801-04 P=155.036231 Days $T_0=282.950918$ (BKJD)



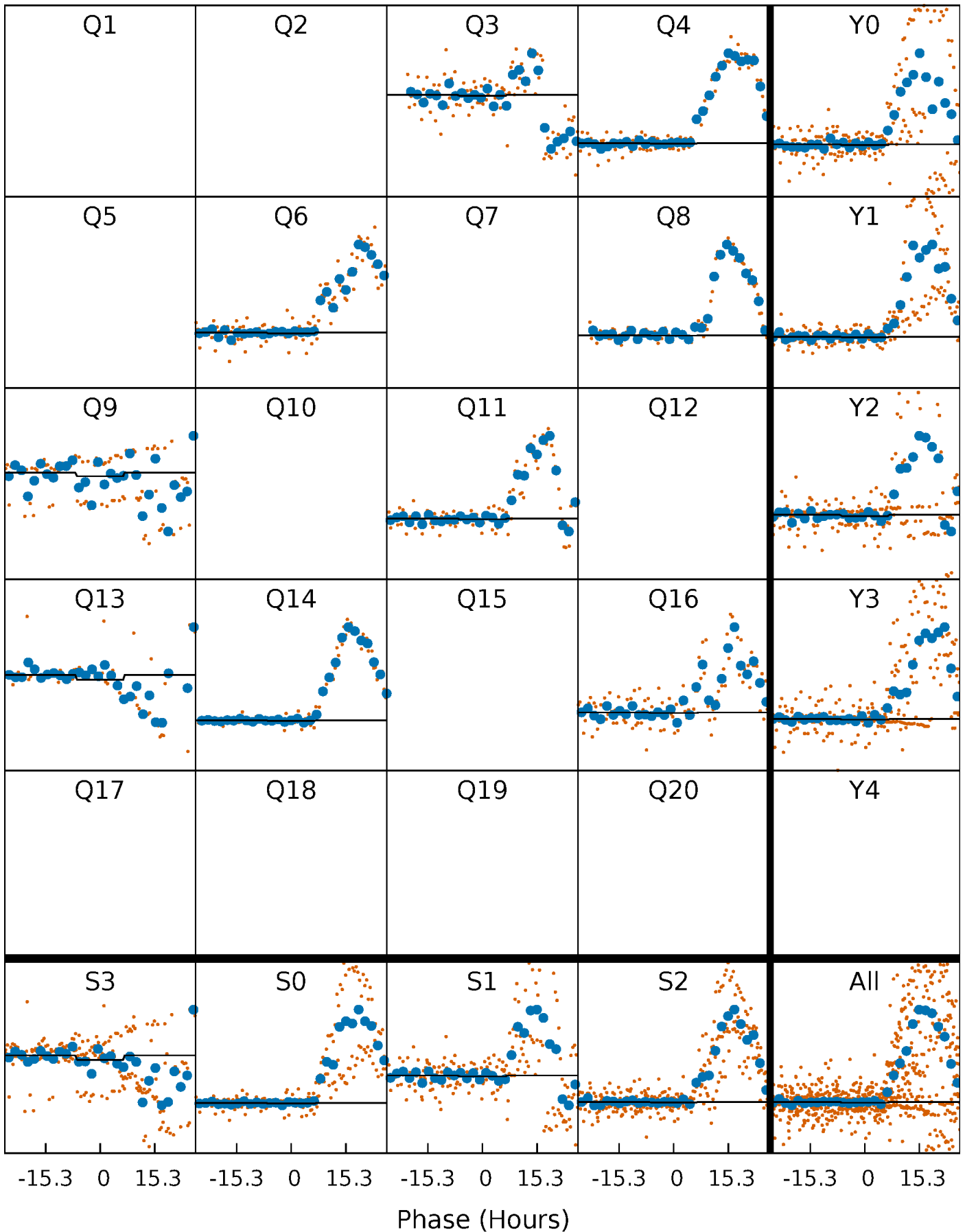
DV Quarter-Phased Transit Curves

TCE 007620801-04 P=155.036231 Days $T_0=282.950918$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

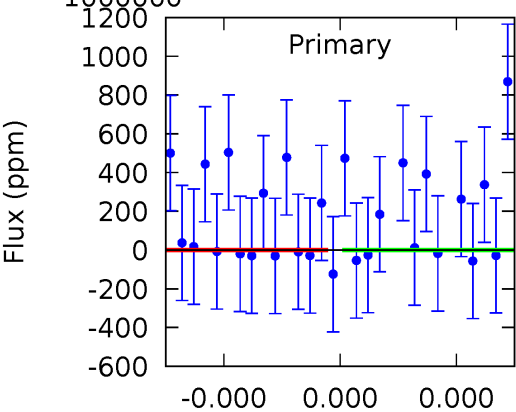
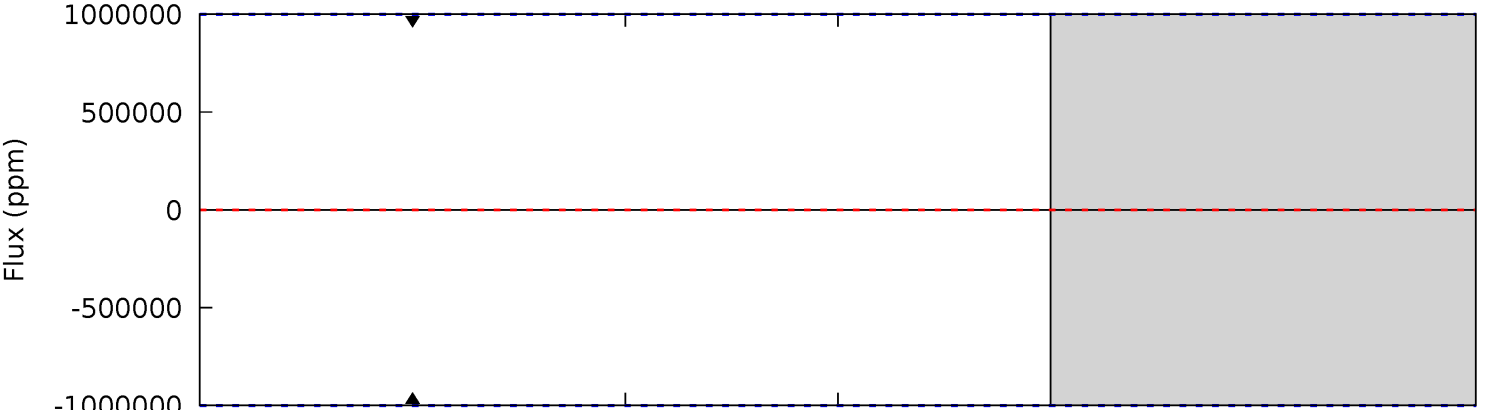
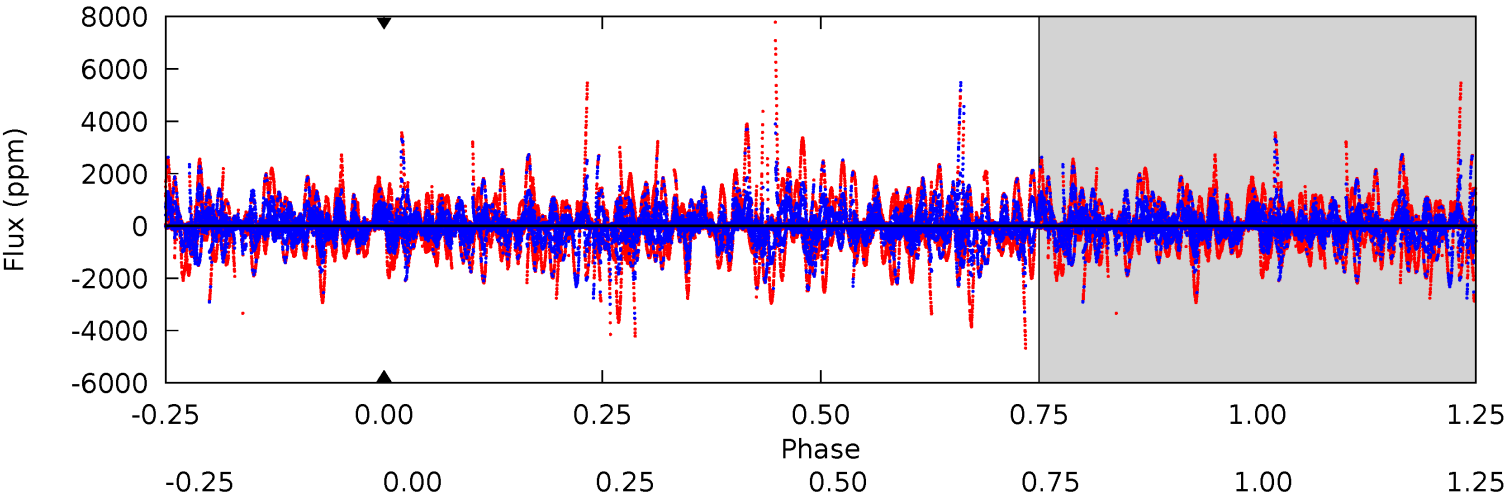
TCE 007620801-04 $P=155.036231$ Days $T_0=282.225460$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-04, P = 155.036231 Days, E = 127.914687 Days

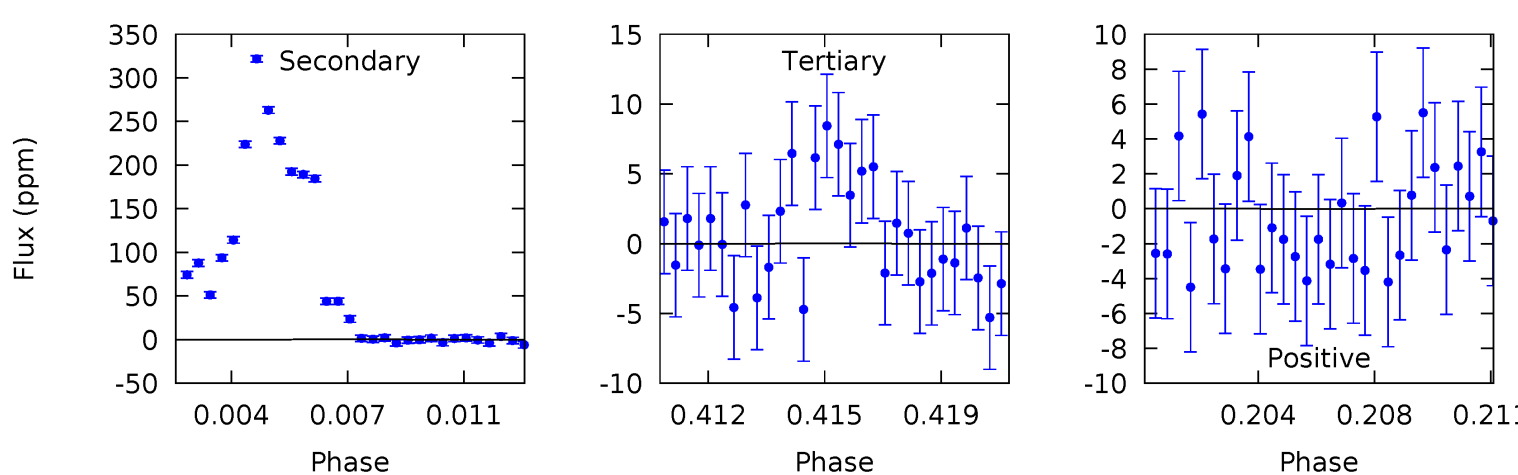
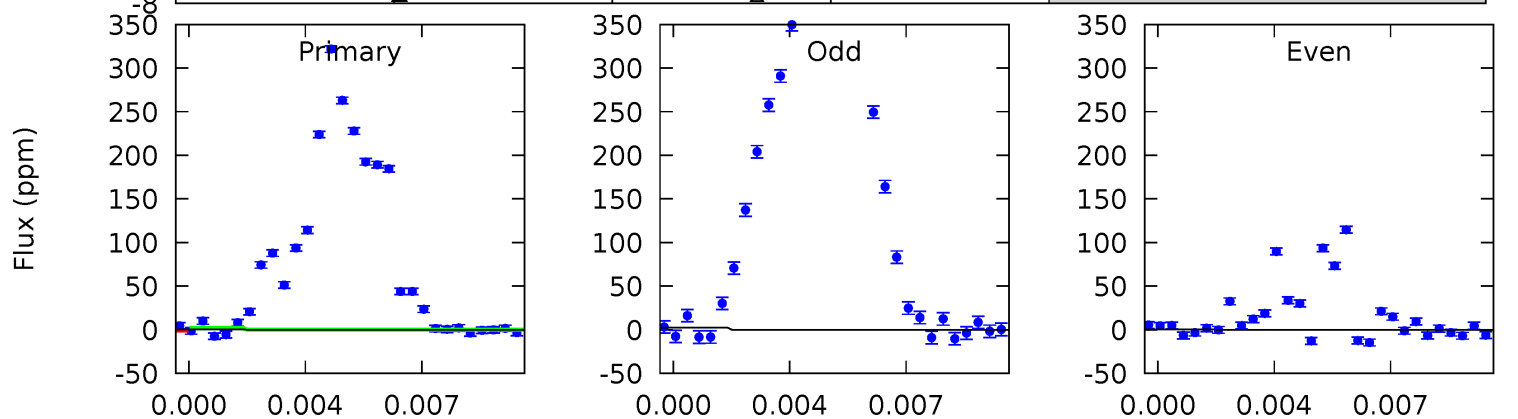
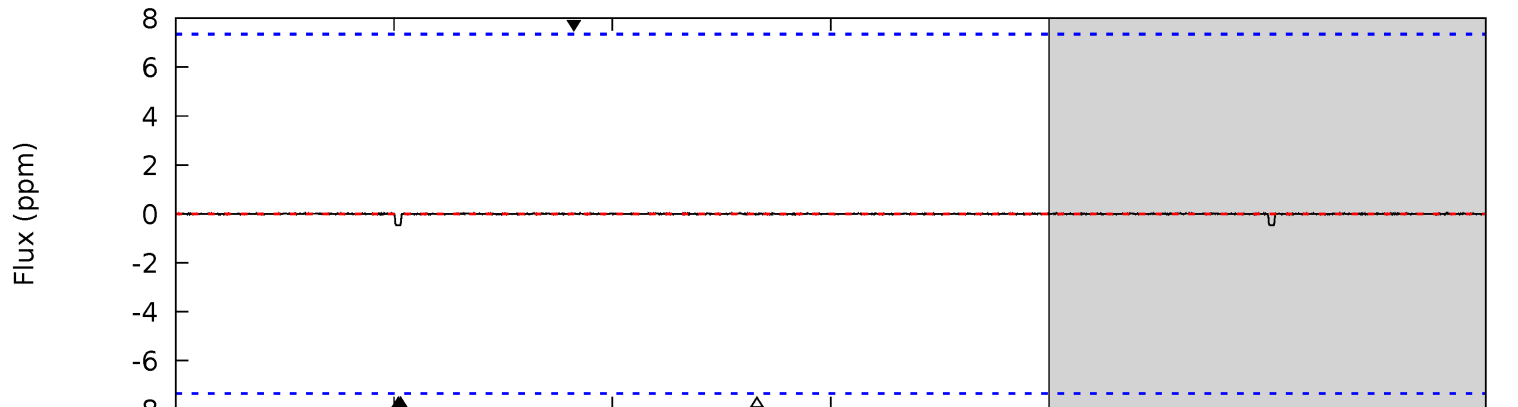
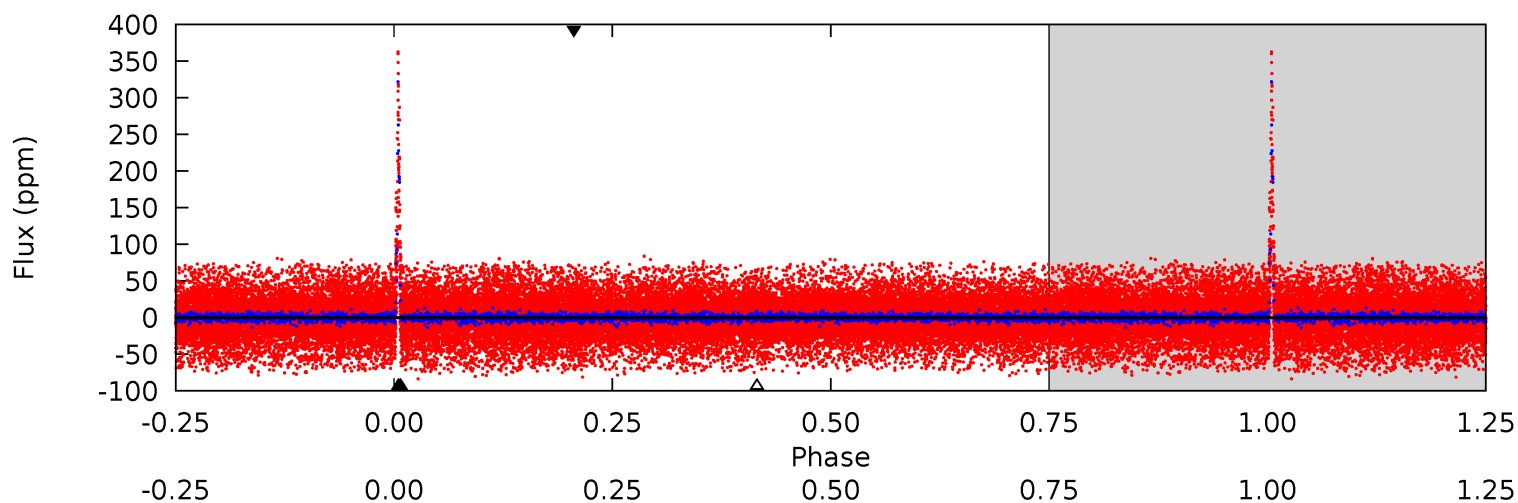
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007620801-04, P = 155.036231 Days, E = 127.189229 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.33	0.30	0.02	0.01	5.21	2.90	0.01	0.31	0.32	0.28	0.29	0.72	1.40	0.04	0.33



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$500.96^{+536.60}_{-355.27}$	2332^{+68}_{-88}	2717^{+6855}_{-11473}	$0.737^{+225.597}_{-167.510}$
Alt.	-0 ± 1	$490.29^{+565.31}_{-347.43}$	2331^{+70}_{-85}	-2555^{+64}_{-57}	$0.000^{+0.005}_{-0.001}$

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 $A_{obs} \gg 1.0$

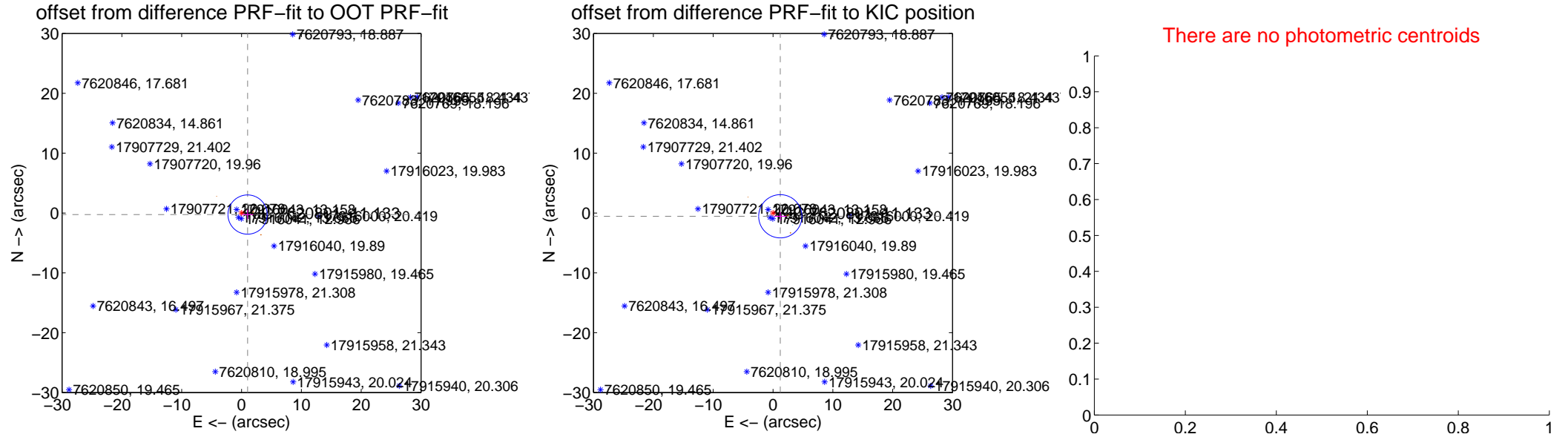
DV Centroid Data

Supplemental centroid analysis for 007620801-04. **Kepler magnitude: 11.13.** Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.041 ± 1.093	0.95	-1.008 ± 0.949	-0.257 ± 0.802
PRF-fit source offset from KIC position	1.334 ± 1.204	1.11	-1.217 ± 1.045	-0.547 ± 0.707
photometric centroid source offset	—	—	—	—

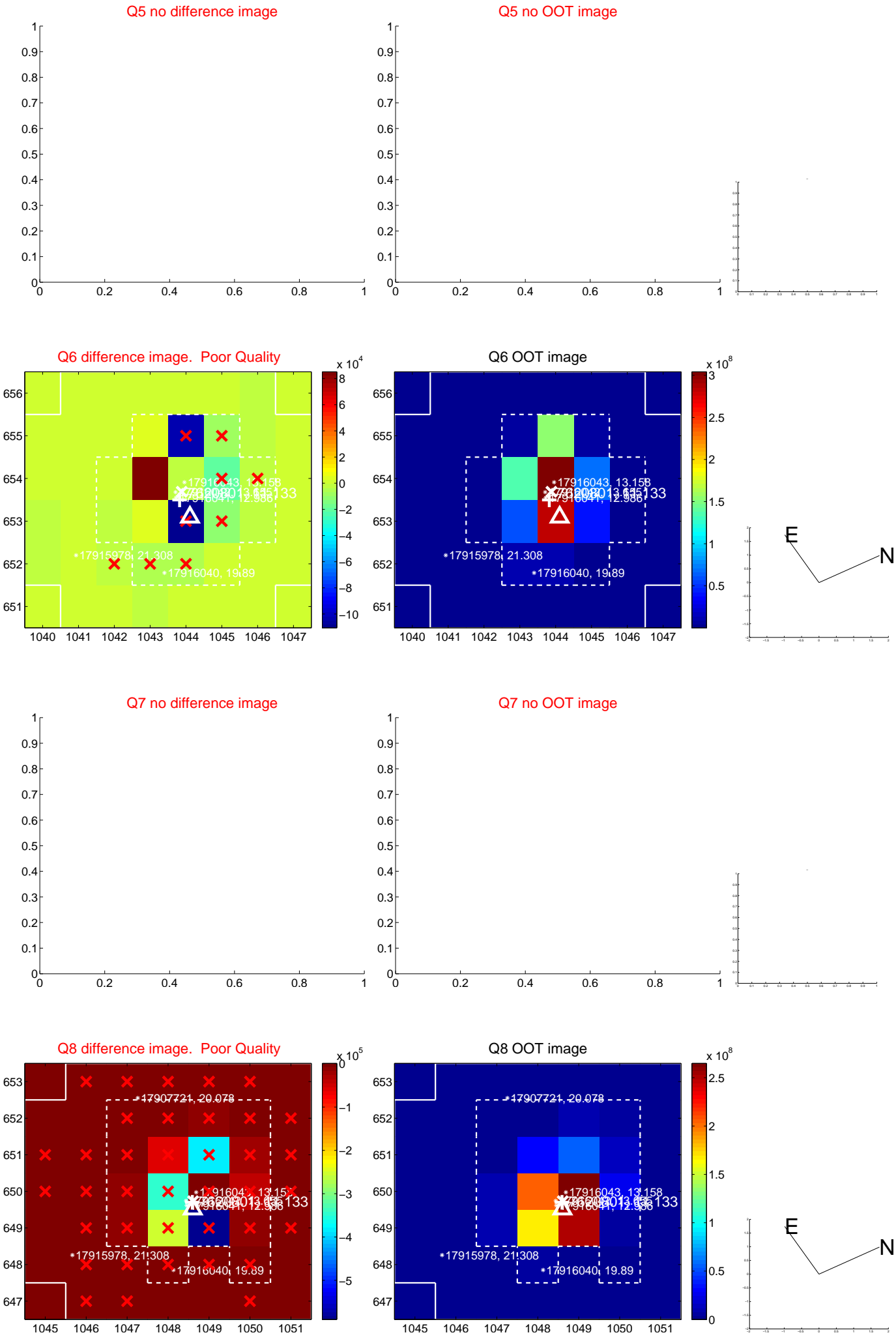


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

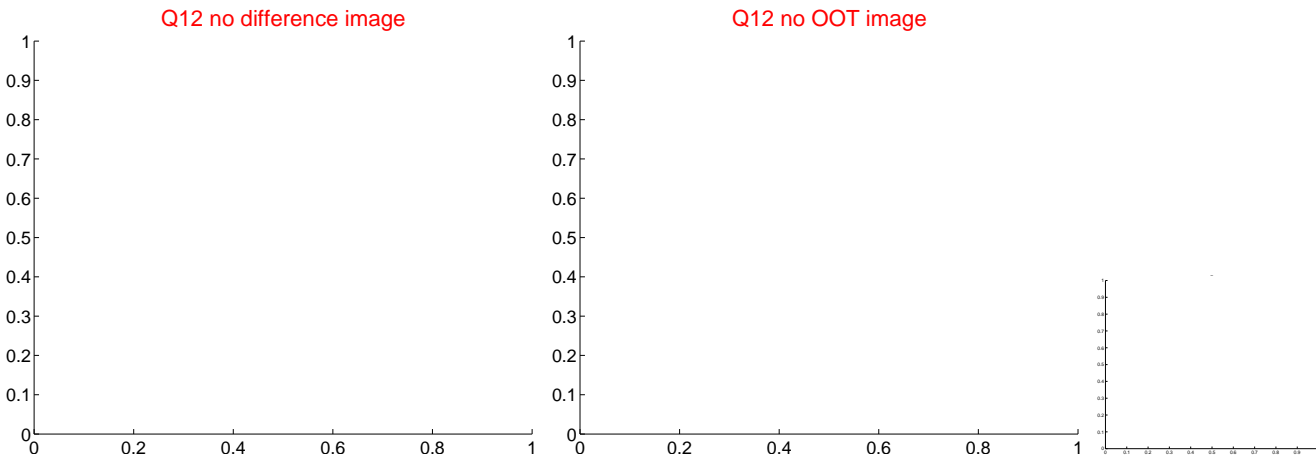
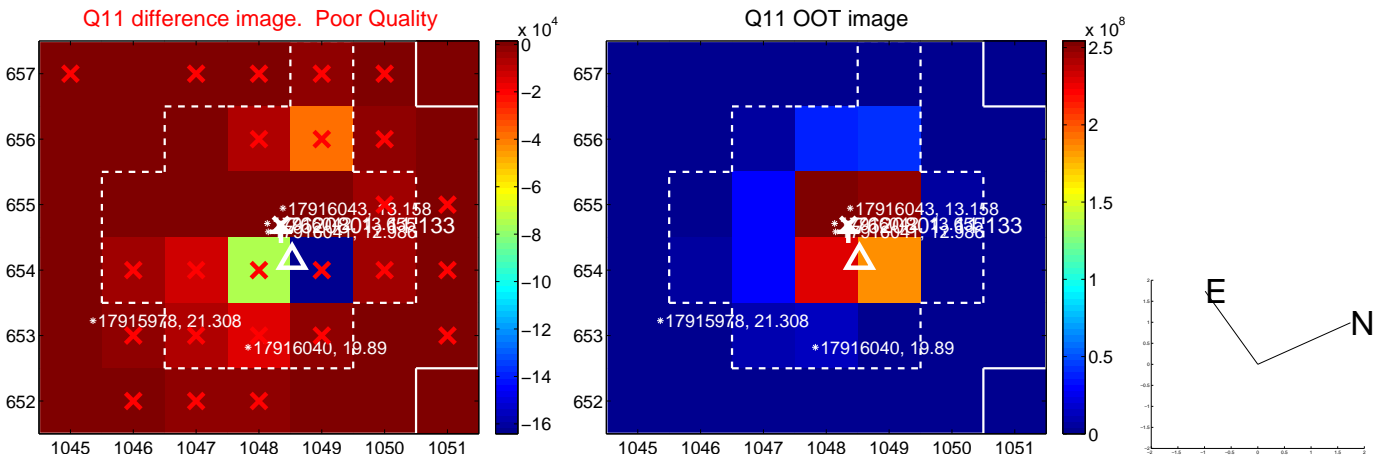
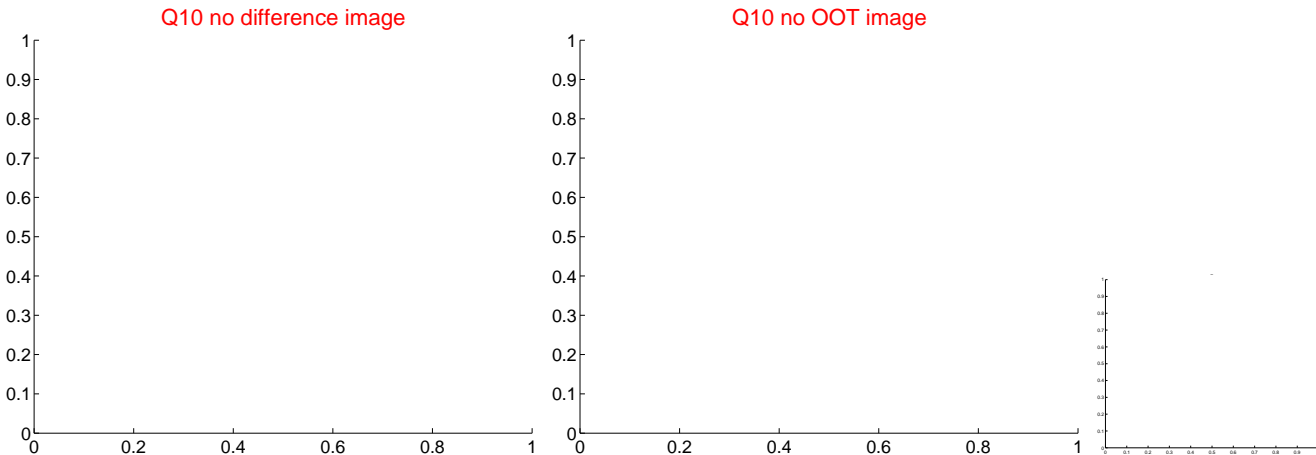
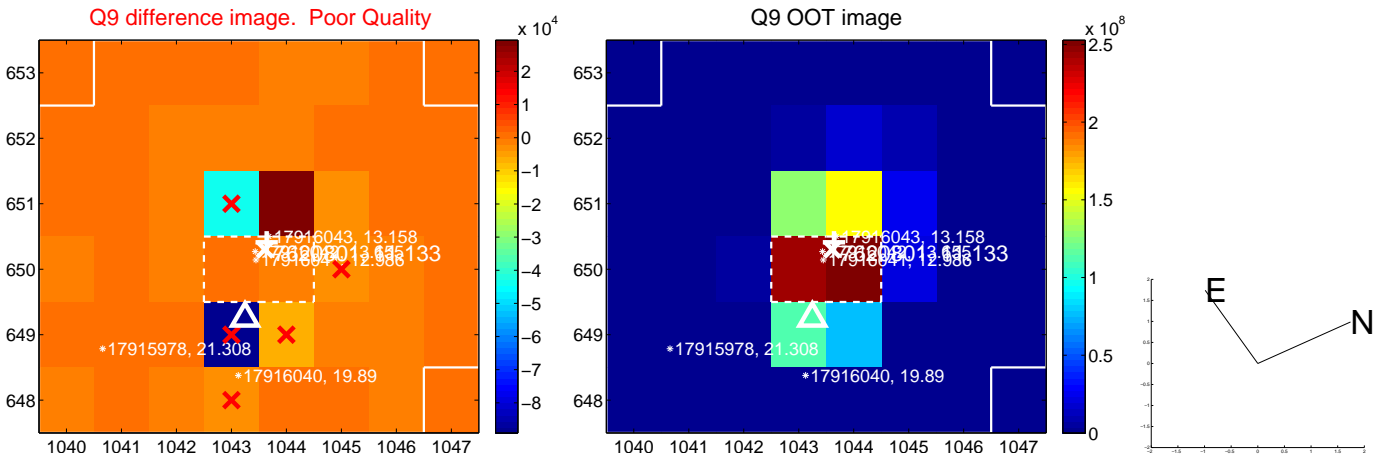
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



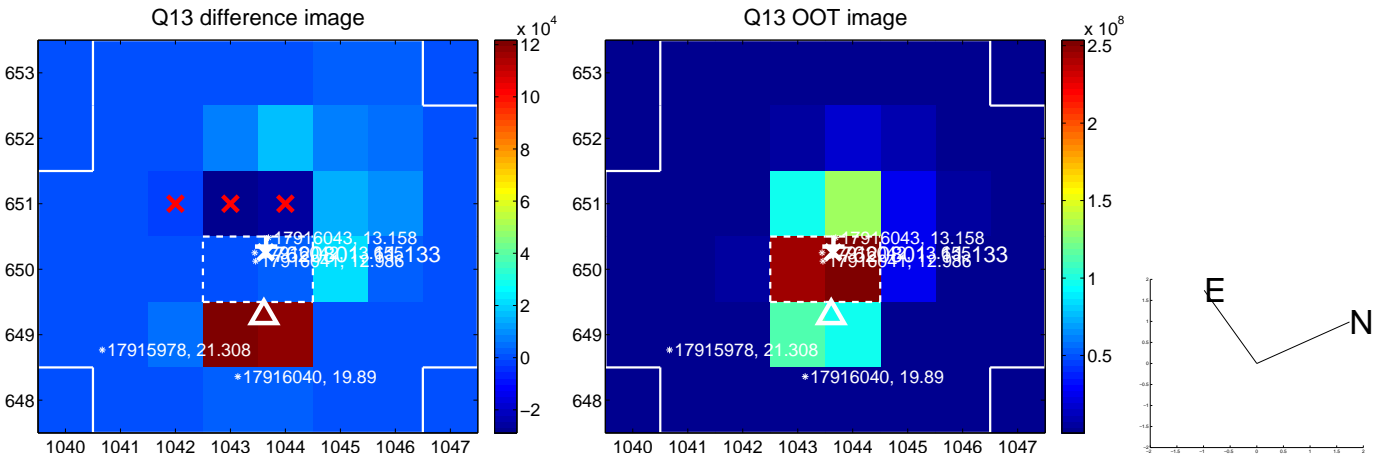
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



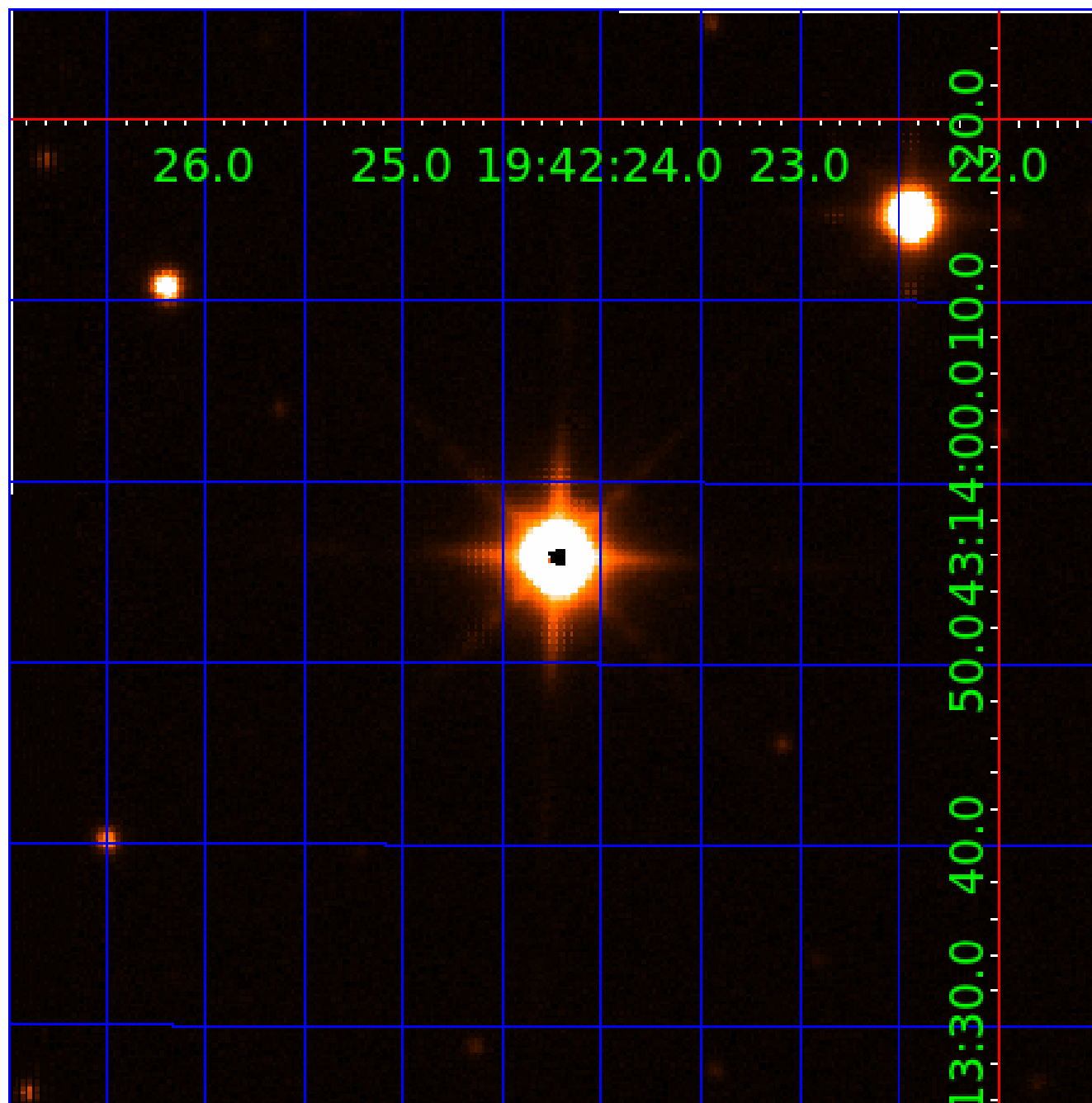
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
007620801-02	OBS	No	101.930288	194.044319	28.8	1.497	11.3	7.3	67.95	3839	34.08	3272.13
007620801-03	OBS	No	312.431315	211.107481	26.5	3.154	10.2	10.6	67.95	3839	44.21	734.90
007620801-04	OBS	No	155.036231	282.950918	49.2	15.000	7.9	-1.0	67.95	3839	44.28	1870.64
007620801-05	OBS	No	248.853873	221.614121	22.9	5.791	8.7	9.2	67.95	3839	41.25	995.35
007620801-06	OBS	No	423.961891	289.227453	29.7	14.963	8.3	6.6	67.95	3839	44.79	489.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

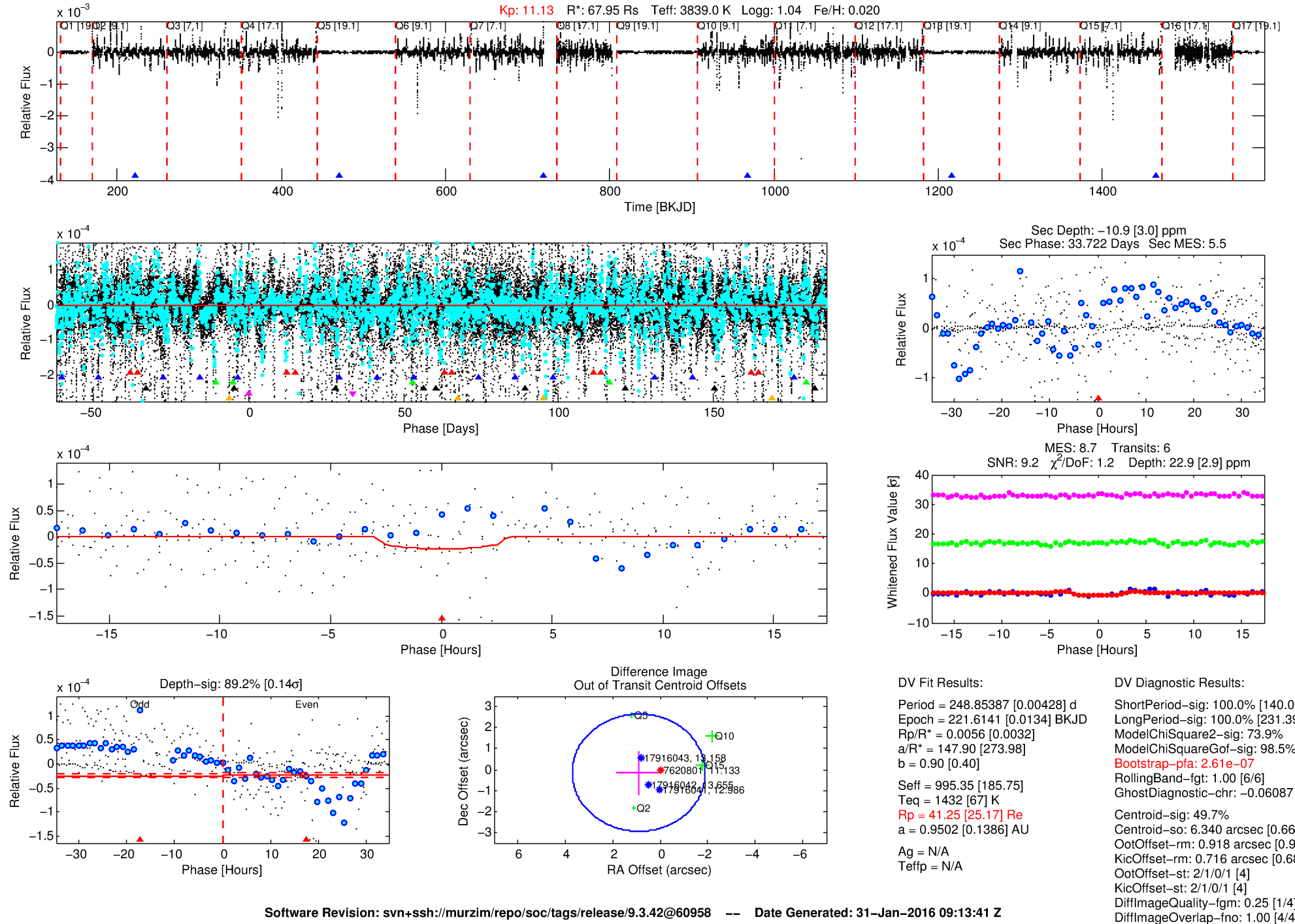
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-05

No Significant Match Found

DV One-Page Summary

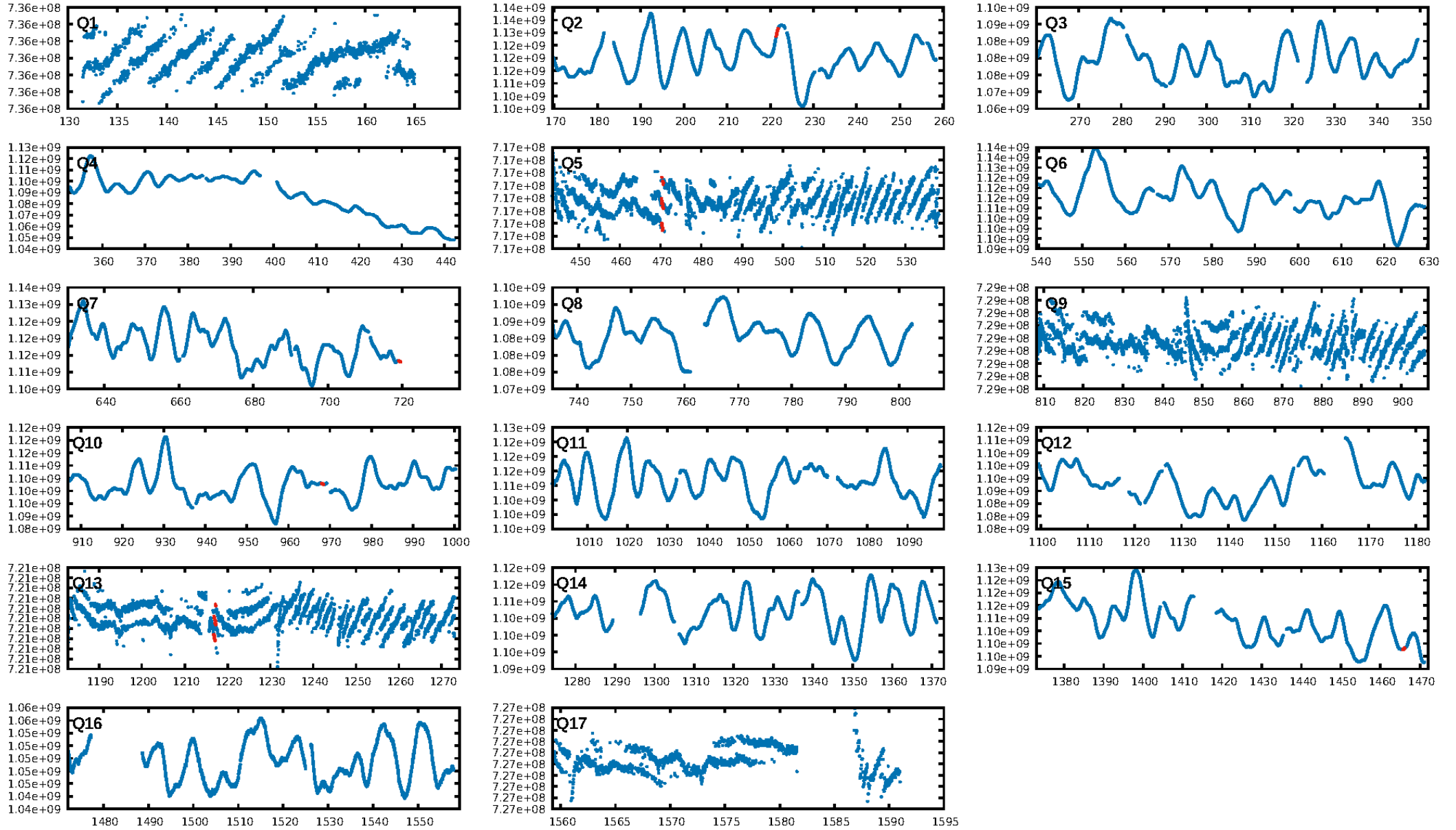
KIC: 7620801 Candidate: 5 of 6 Period: 248.854 d



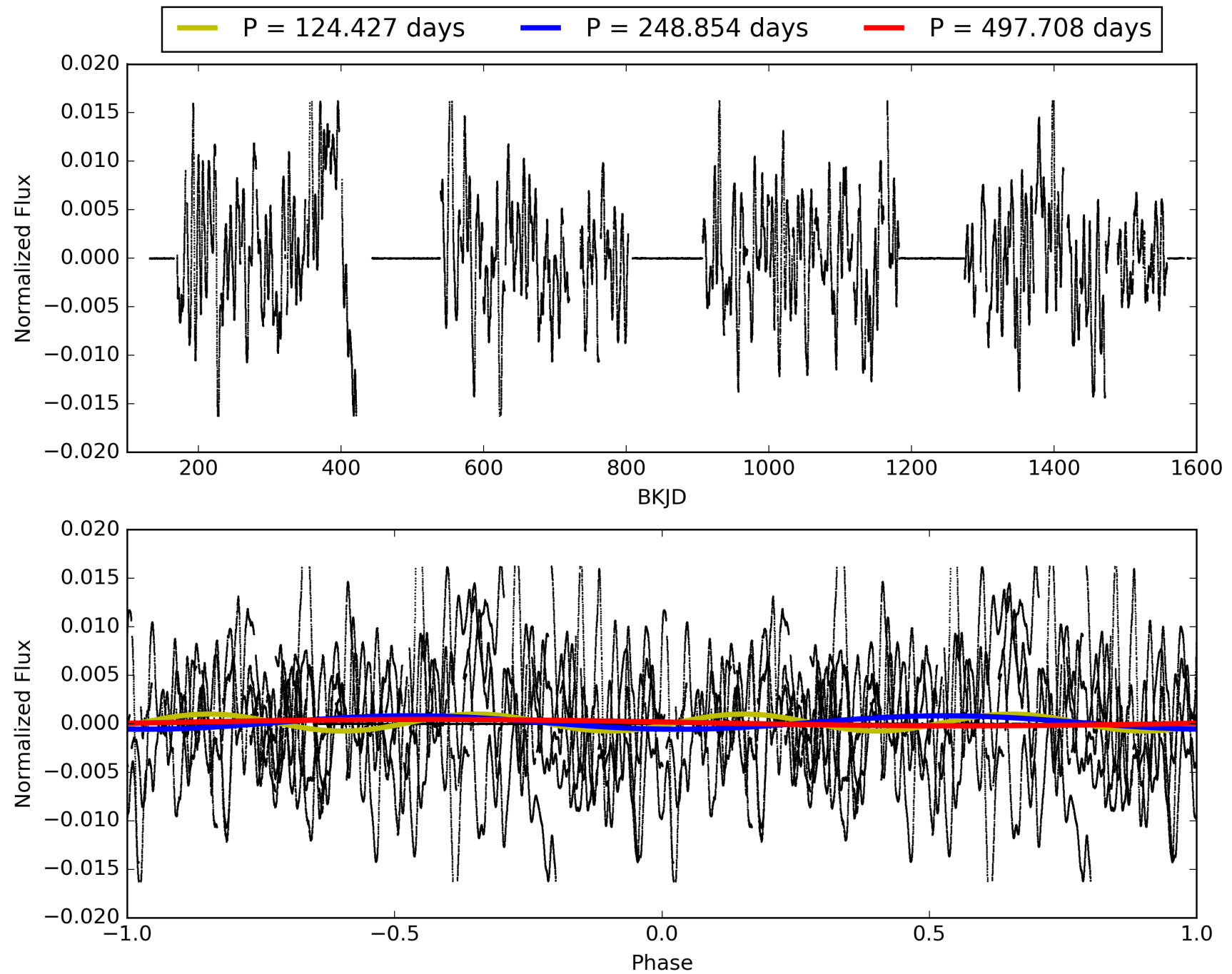
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:13:41 Z

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

TCE 007620801-05, PDC Light Curves

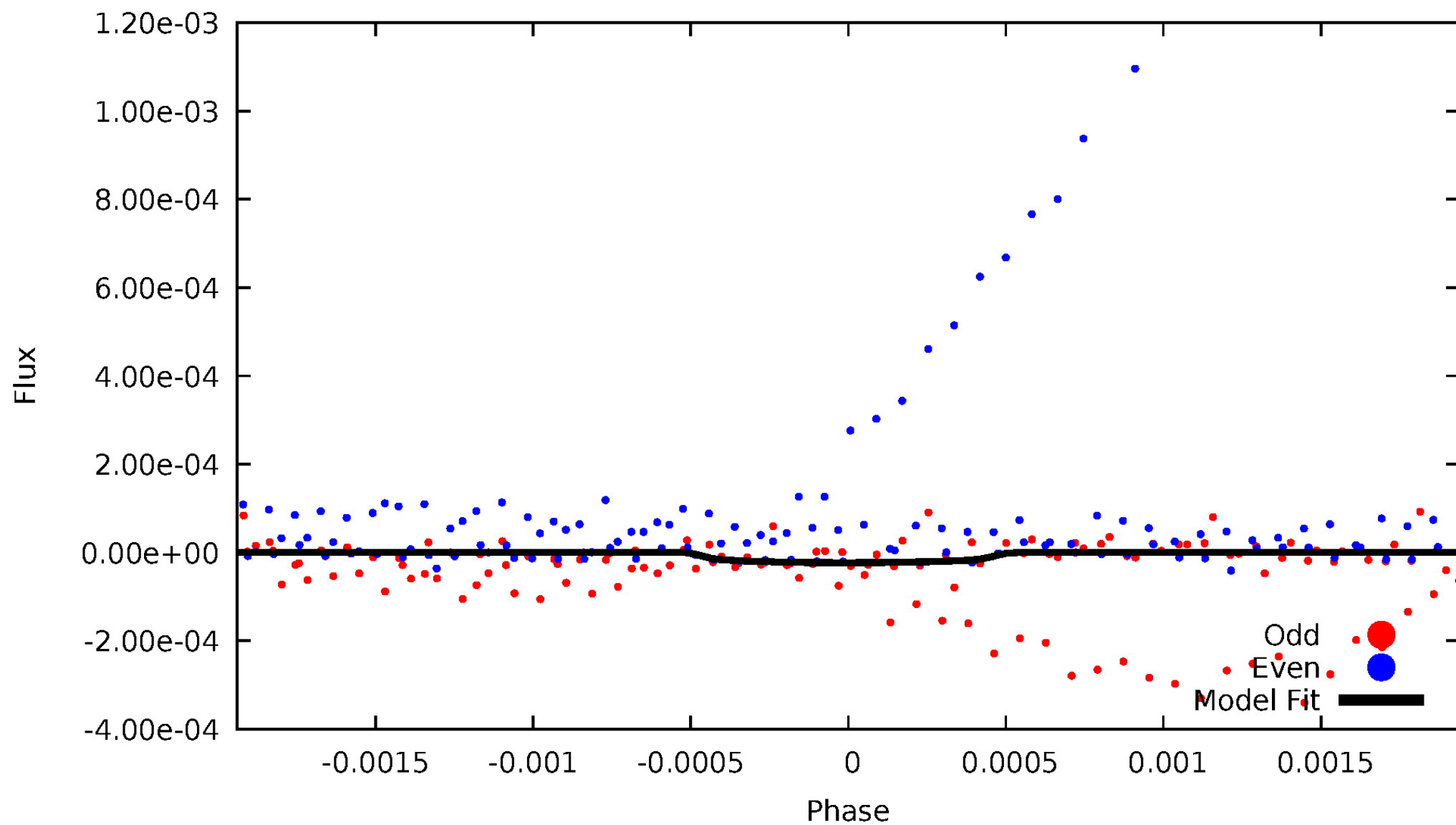


TCE 007620801-05



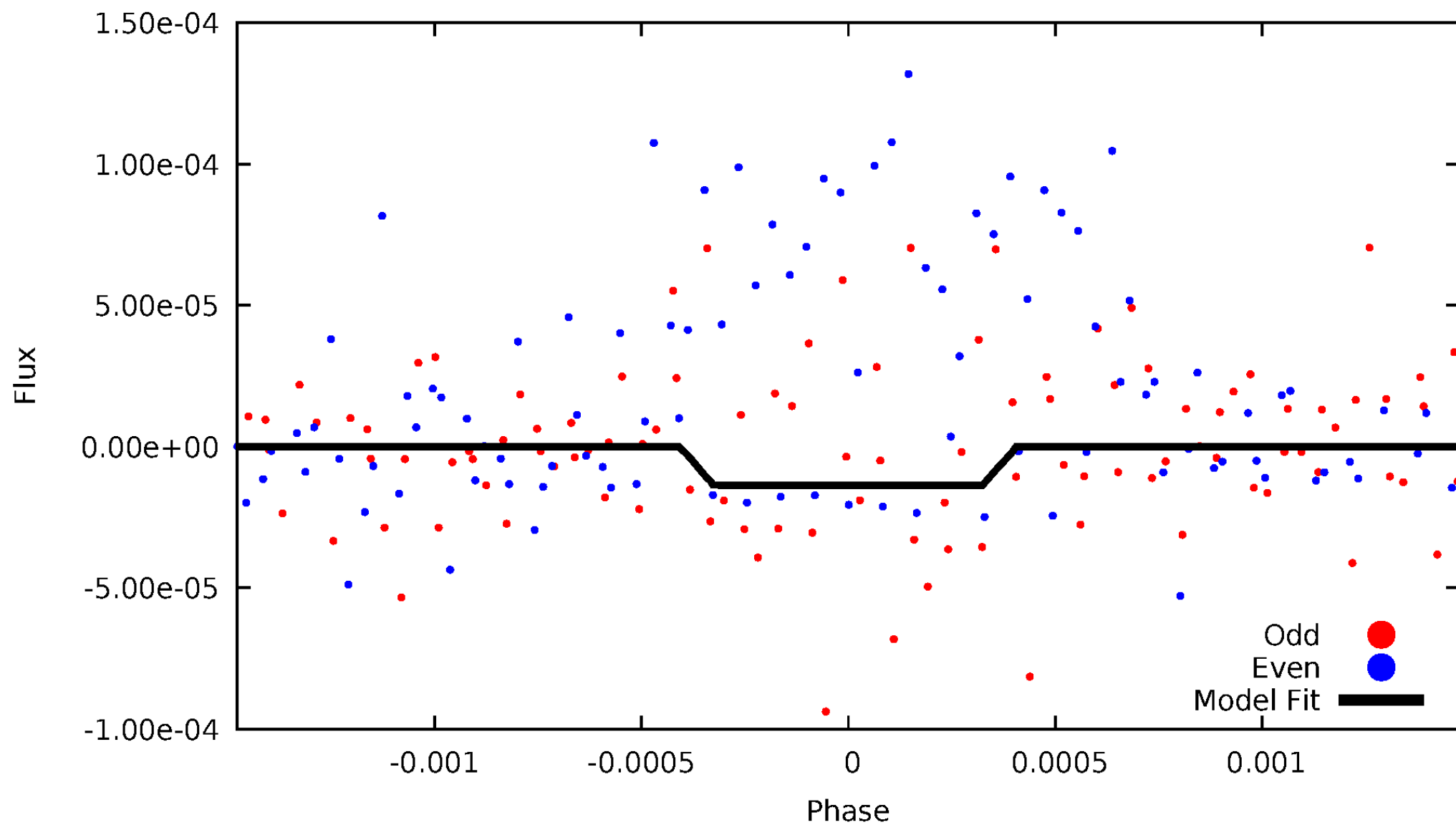
DV Odd/Even

TCE 007620801-05

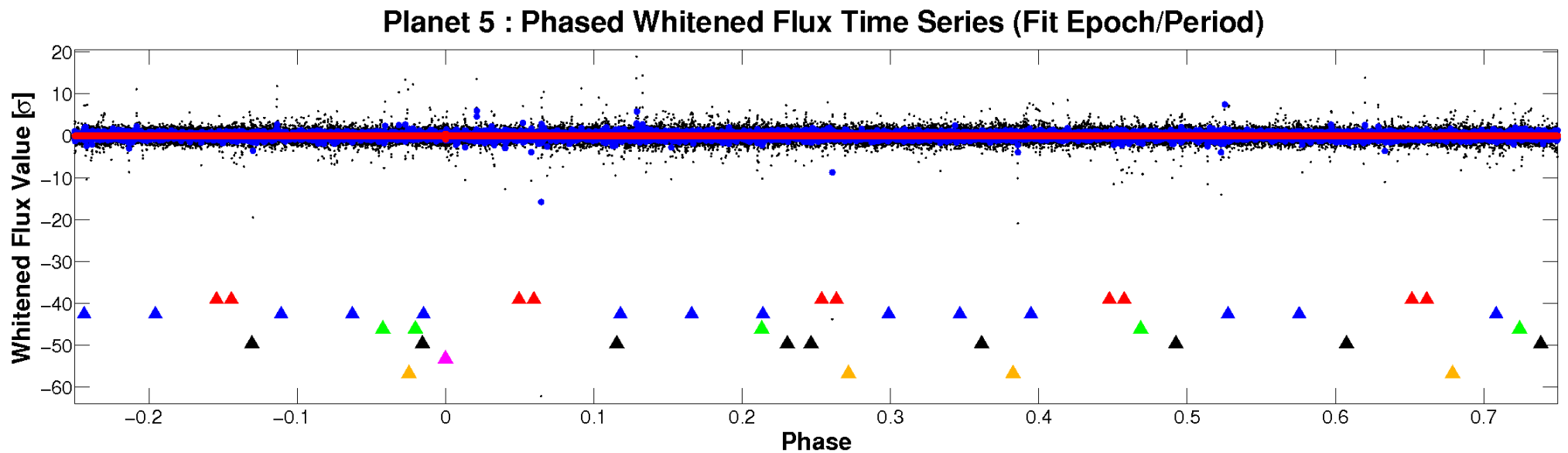
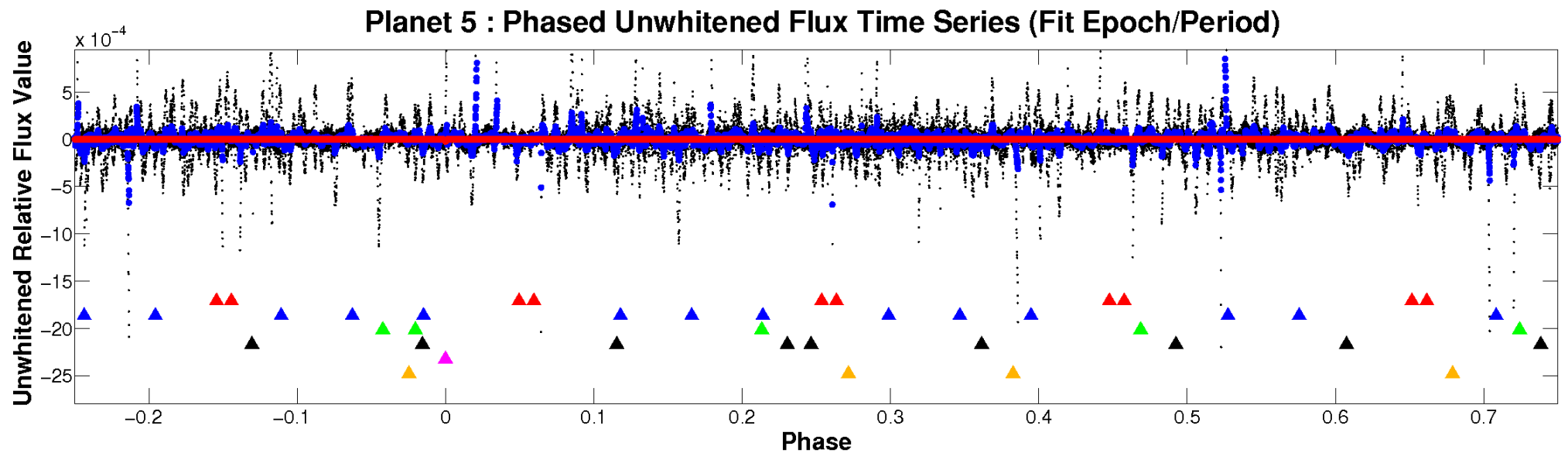


ALT Odd/Even

TCE 007620801-05

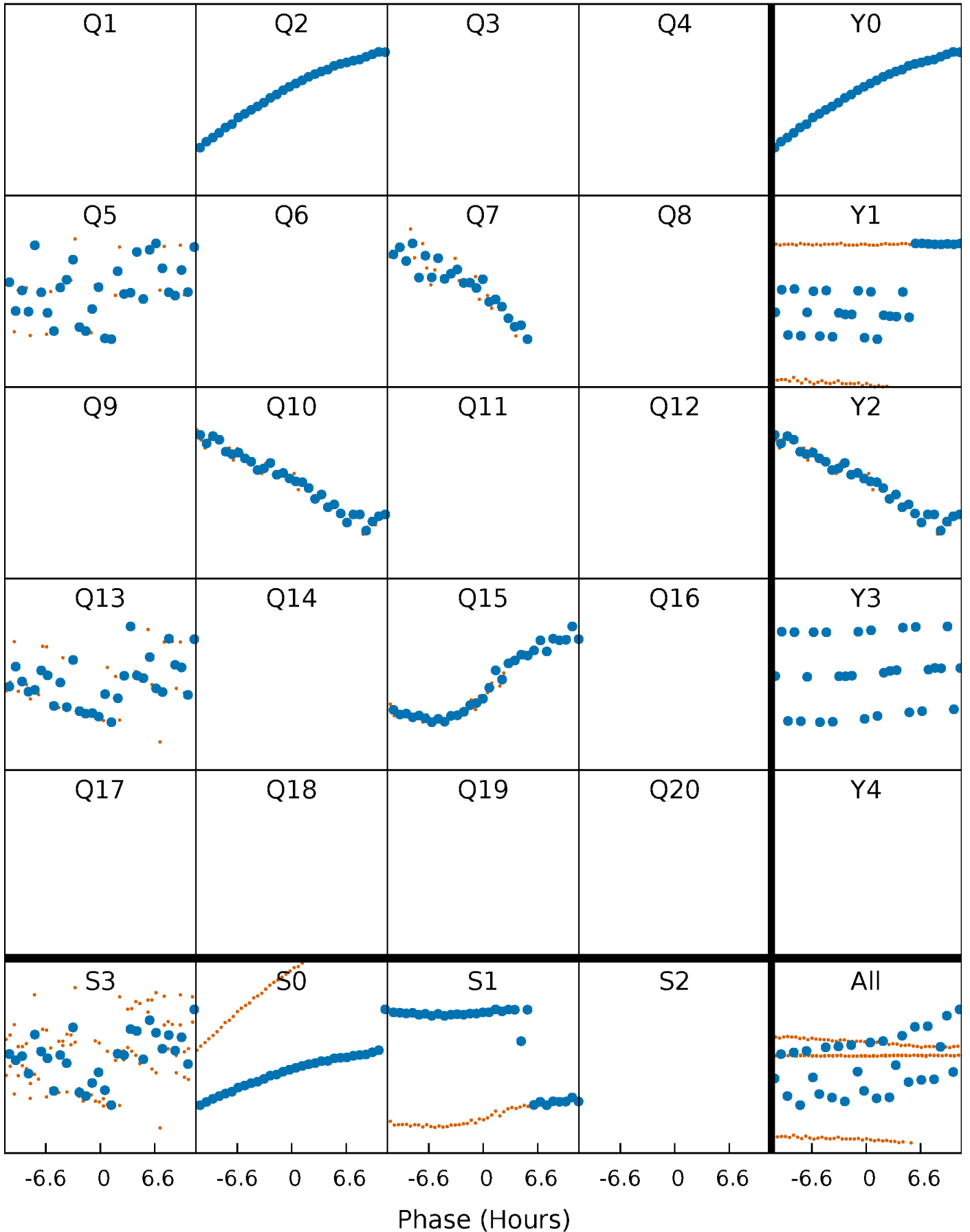


Non-Whitened Vs. Whitened Light Curve



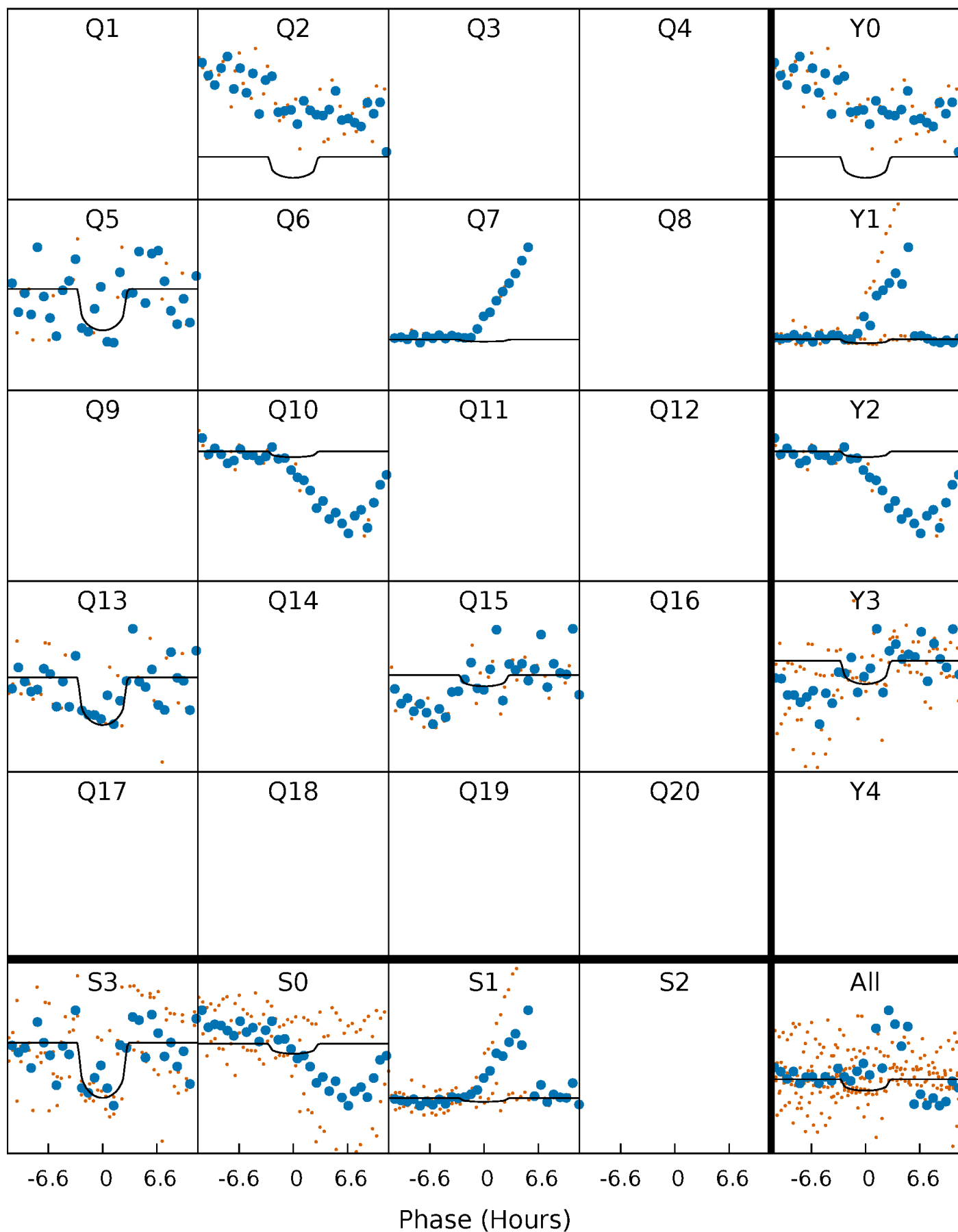
PDC Quarter-Phased Transit Curves

TCE 007620801-05 $P=248.853873$ Days $T_0=221.614121$ (BKJD)



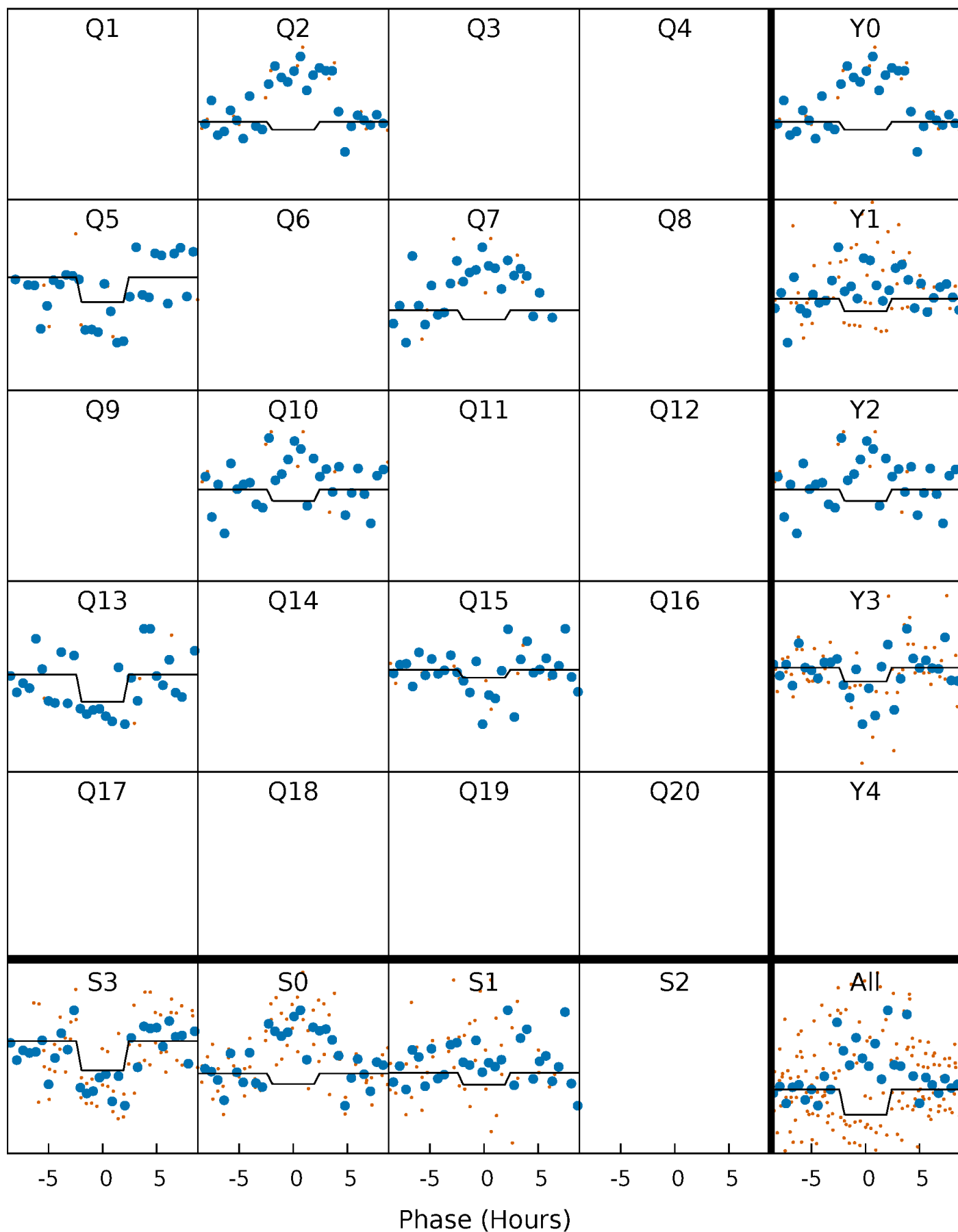
DV Quarter-Phased Transit Curves

TCE 007620801-05 $P=248.853873$ Days $T_0=221.614121$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

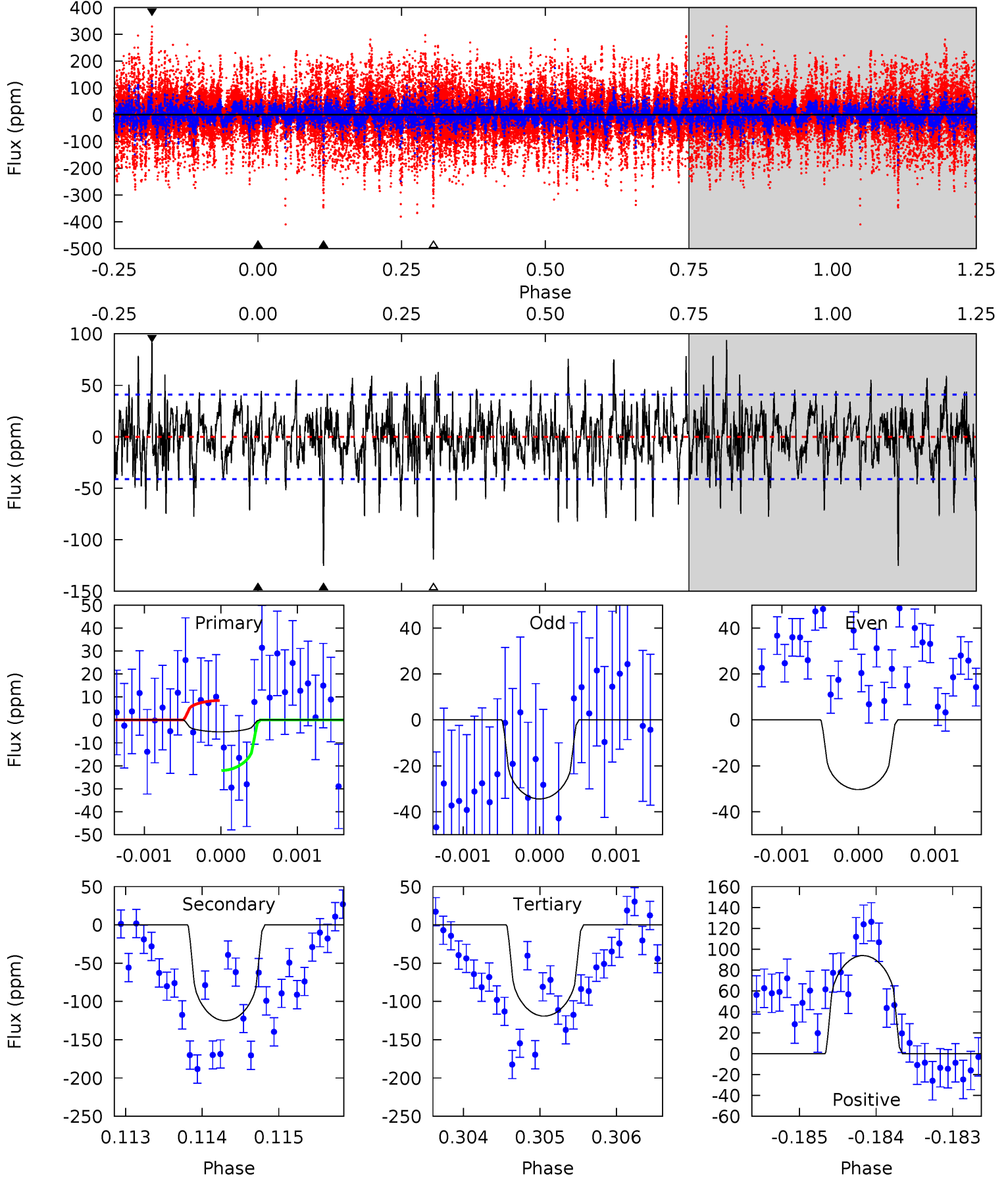
TCE 007620801-05 $P=248.853516$ Days $T_0=221.590499$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-05, P = 248.853873 Days, E = 221.614121 Days

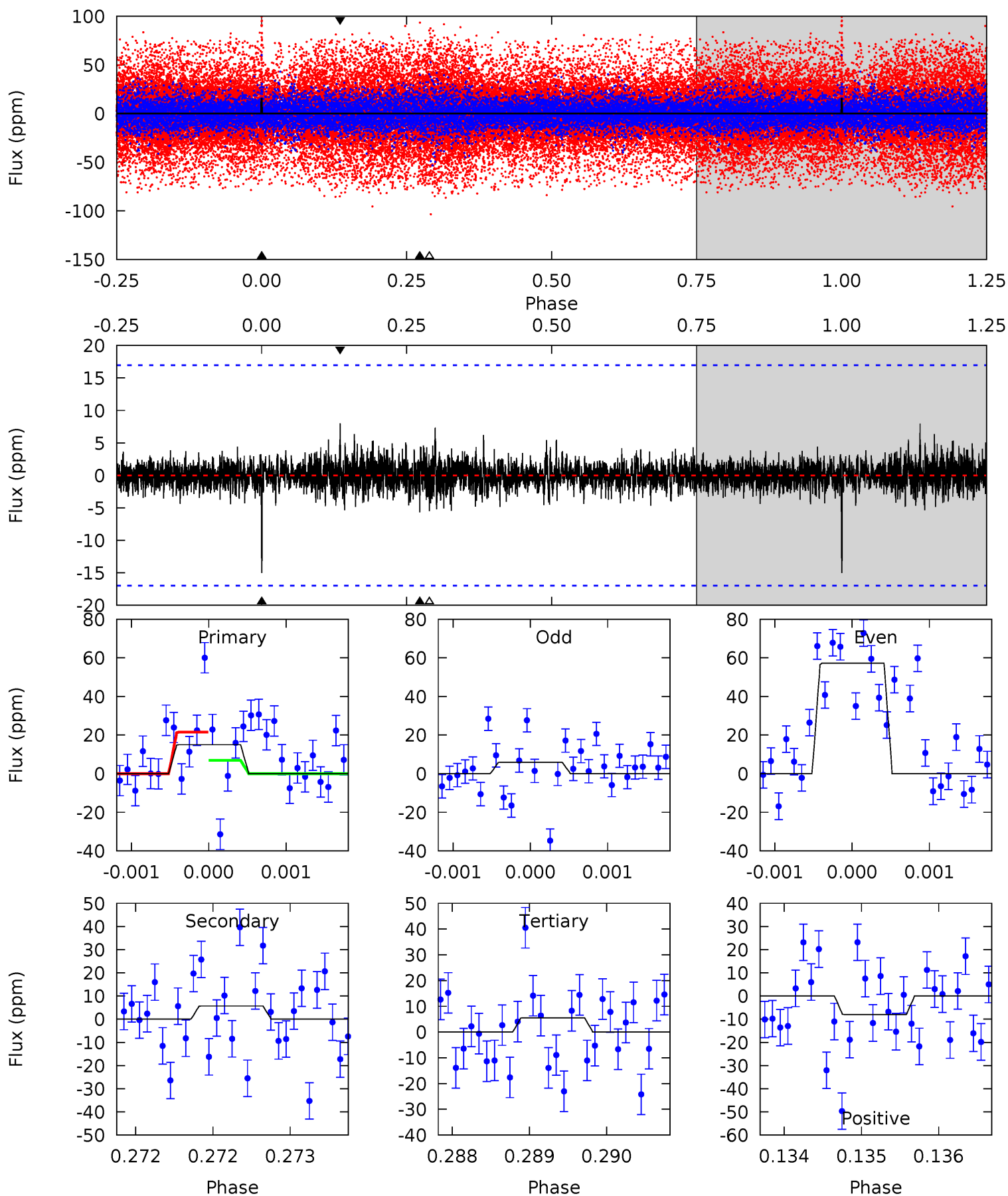
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.69	16.6	15.8	12.5	5.44	3.28	3.02	-15.1	-11.8	0.80	4.15	0.20	-3.70	0.43	0.92



Alt Model-Shift Uniqueness Test

007620801-05, P = 248.853516 Days, E = 221.590499 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.86	1.84	1.78	2.59	5.49	3.36	0.46	3.08	2.27	0.06	-0.75	8.34	2.35	0.35	2.39



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-125 ± 8	$40.28^{+22.73}_{-20.74}$	1987^{+62}_{-71}	4931^{+2132}_{-796}	37^{+117}_{-21}
Alt.	-6 ± 3	$30.13^{+20.81}_{-17.70}$	1985^{+61}_{-70}	3102^{+1113}_{-666}	$2.738^{+13.846}_{-2.026}$

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 $A_{obs} \gg 1.0$

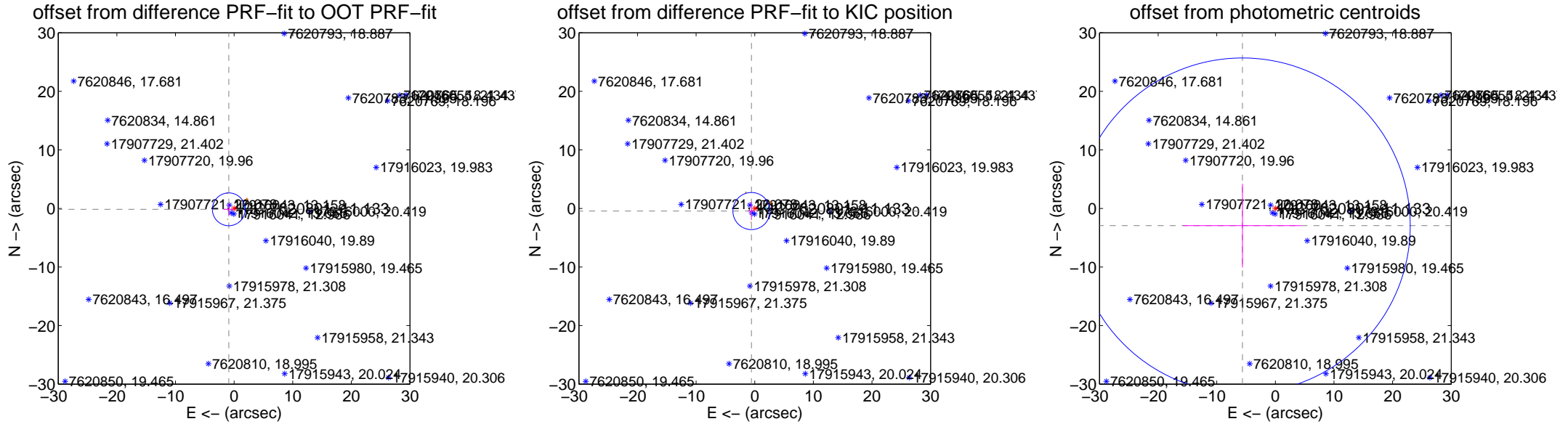
DV Centroid Data

Supplemental centroid analysis for 007620801-05. **Kepler magnitude: 11.13.** Transit SNR 9.24

There are 1 quarters with good PRF difference image offsets

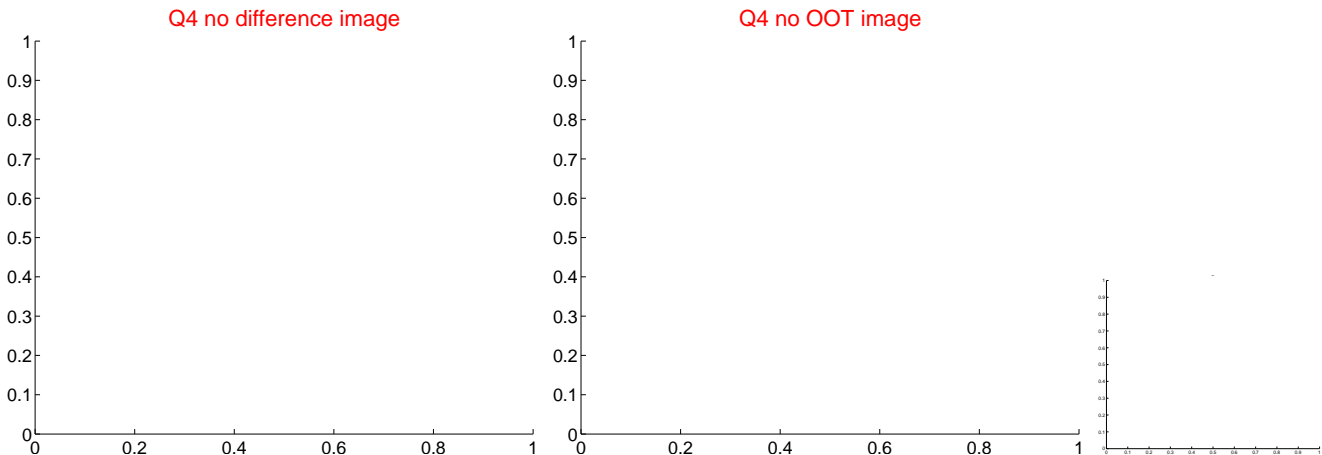
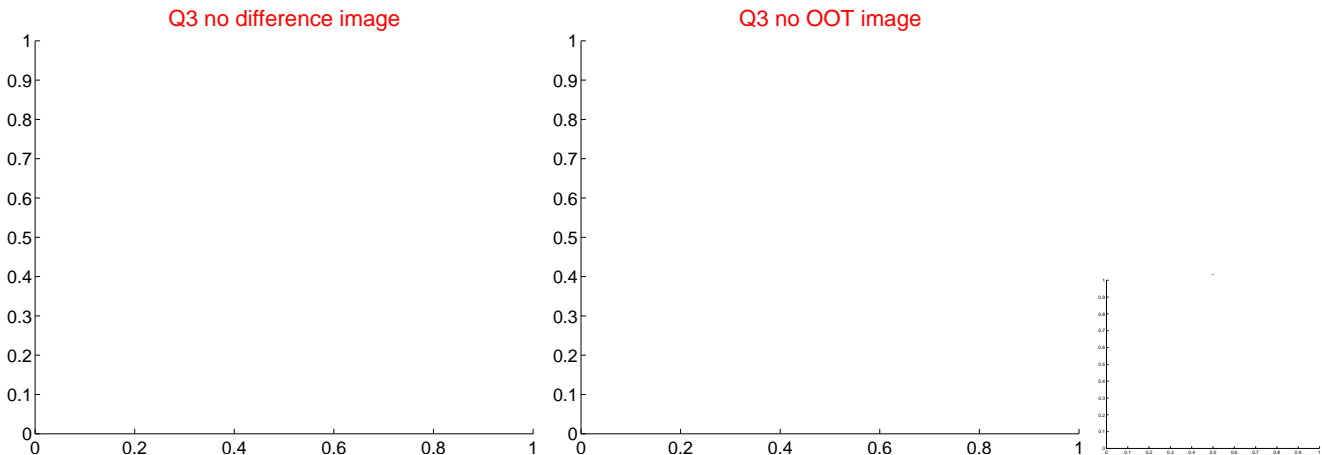
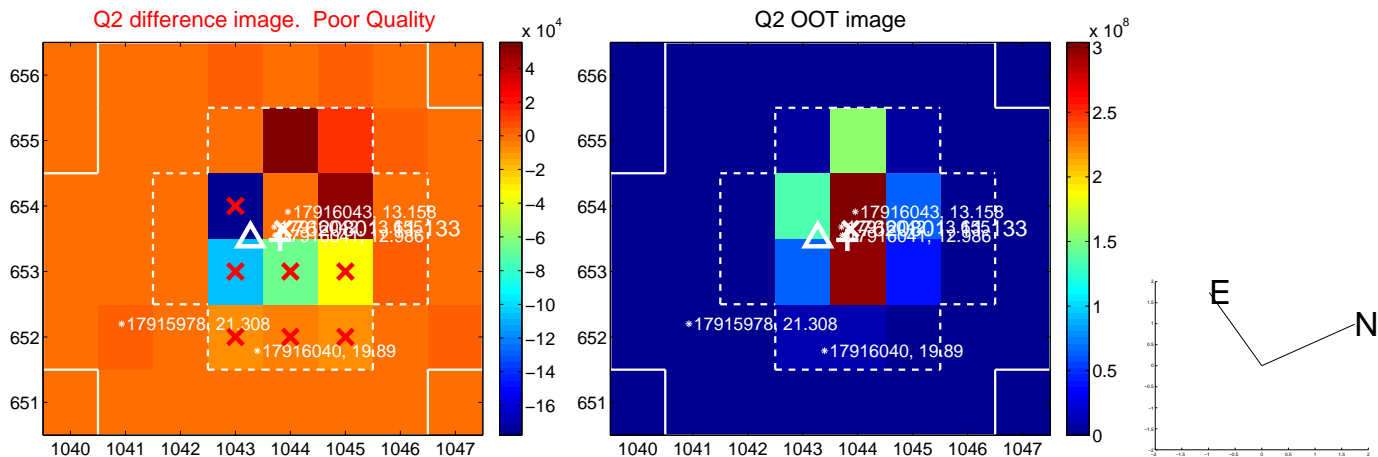
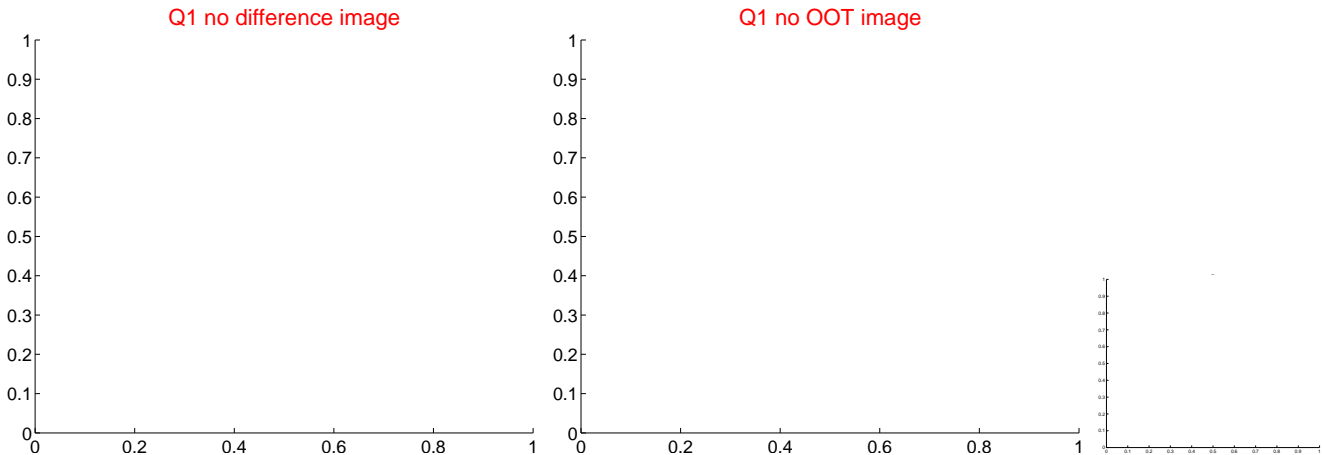
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.918 ± 0.933	0.98	0.906 ± 0.935	-0.149 ± 1.023
PRF-fit source offset from KIC position	0.716 ± 1.055	0.68	0.561 ± 0.564	-0.445 ± 1.543
photometric centroid source offset	6.34 ± 9.54	0.66	5.62 ± 10.10	-2.94 ± 7.14

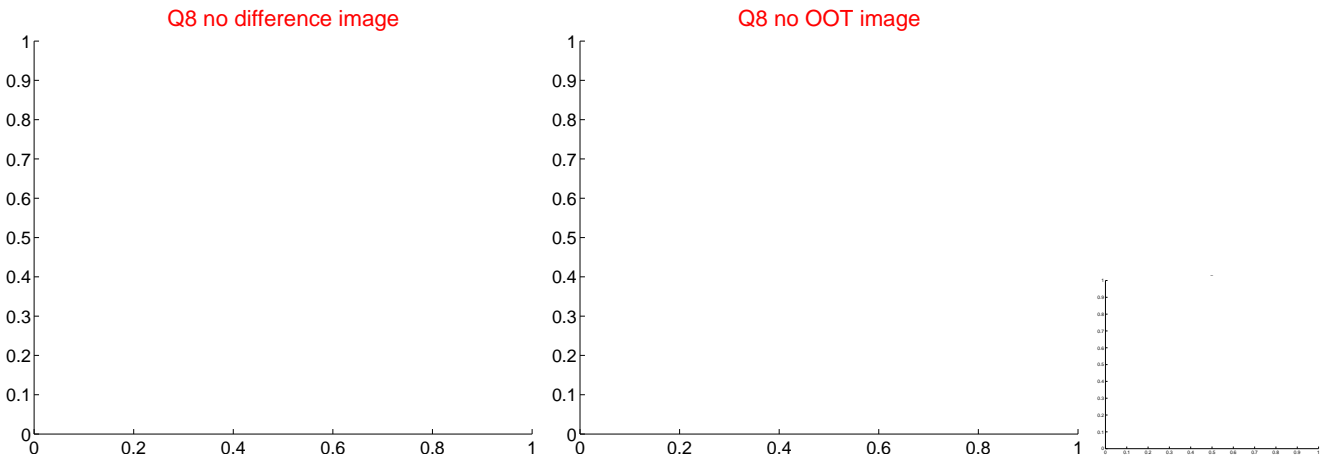
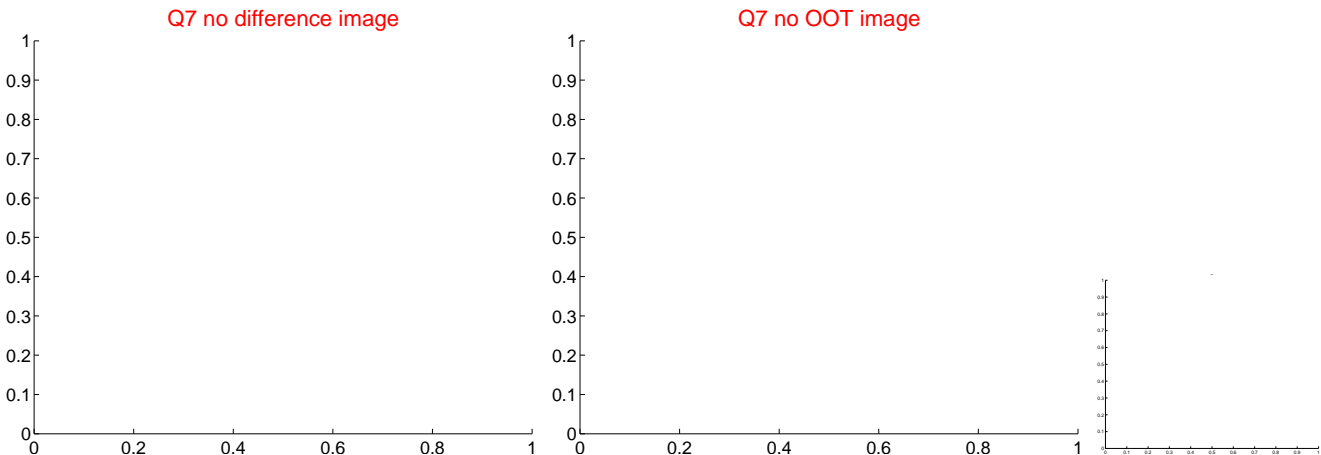
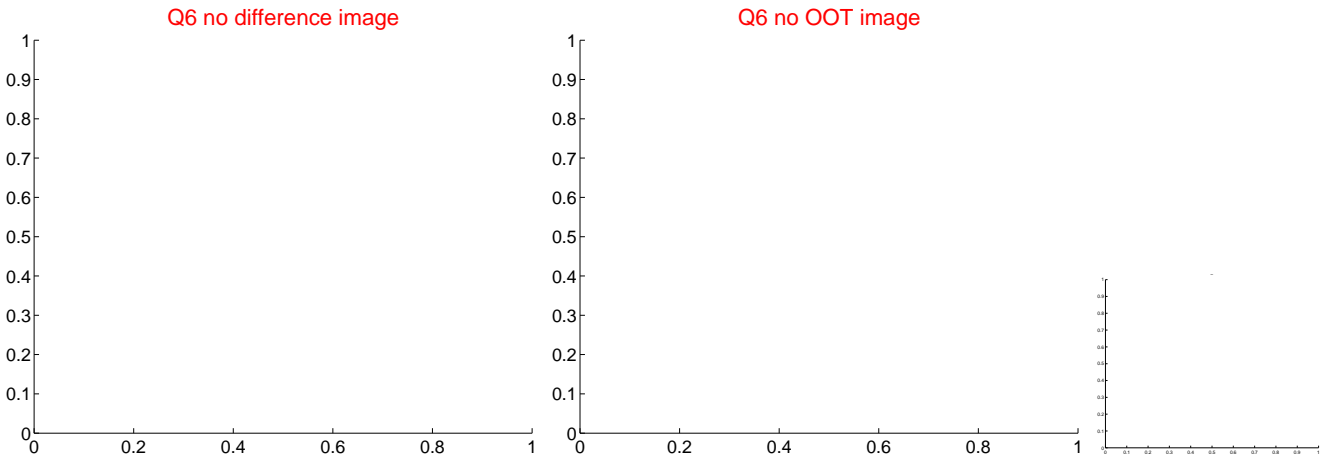
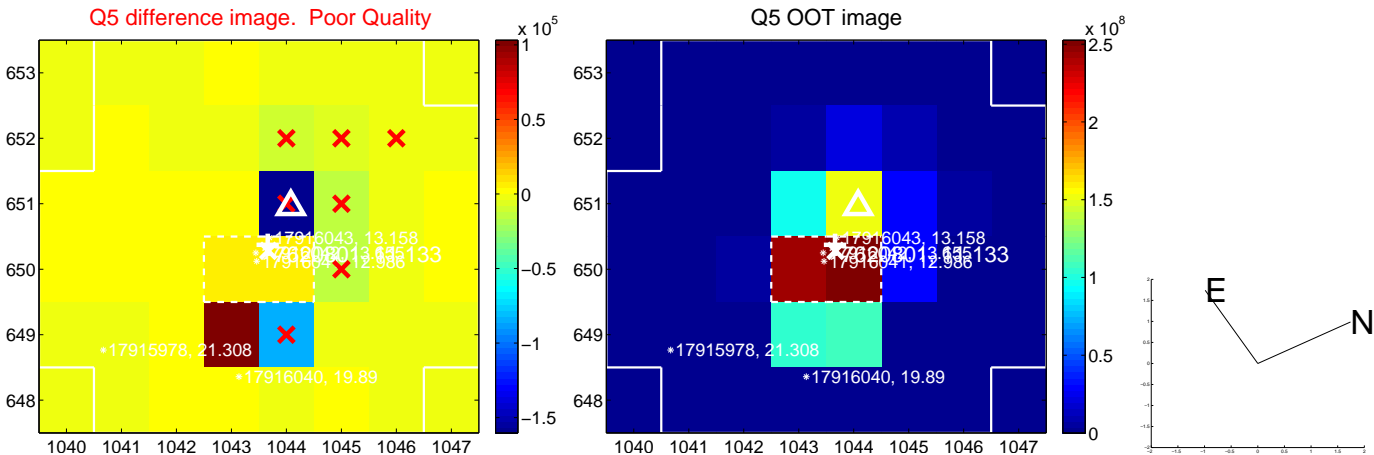


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

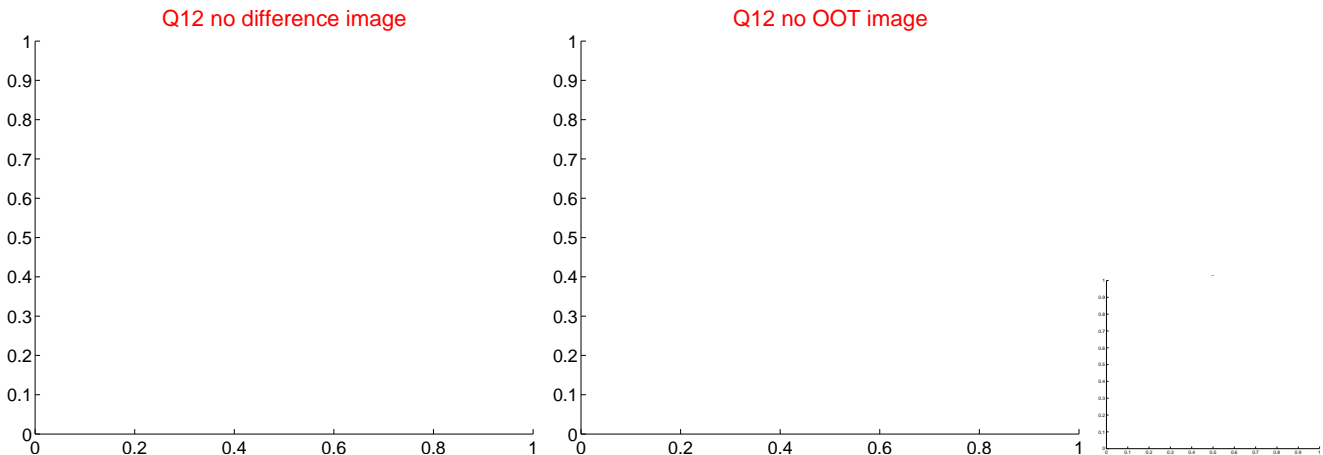
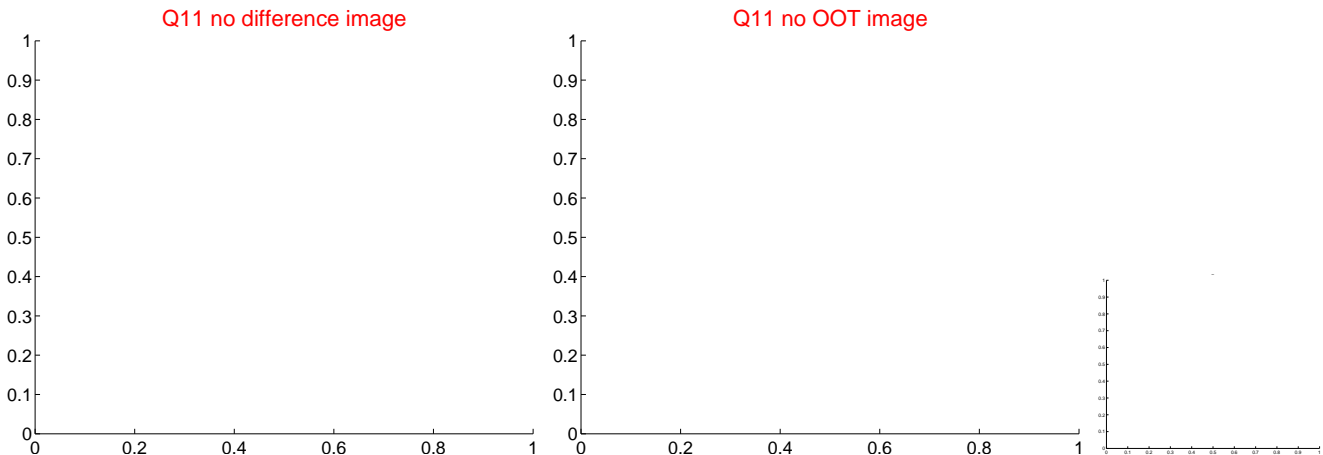
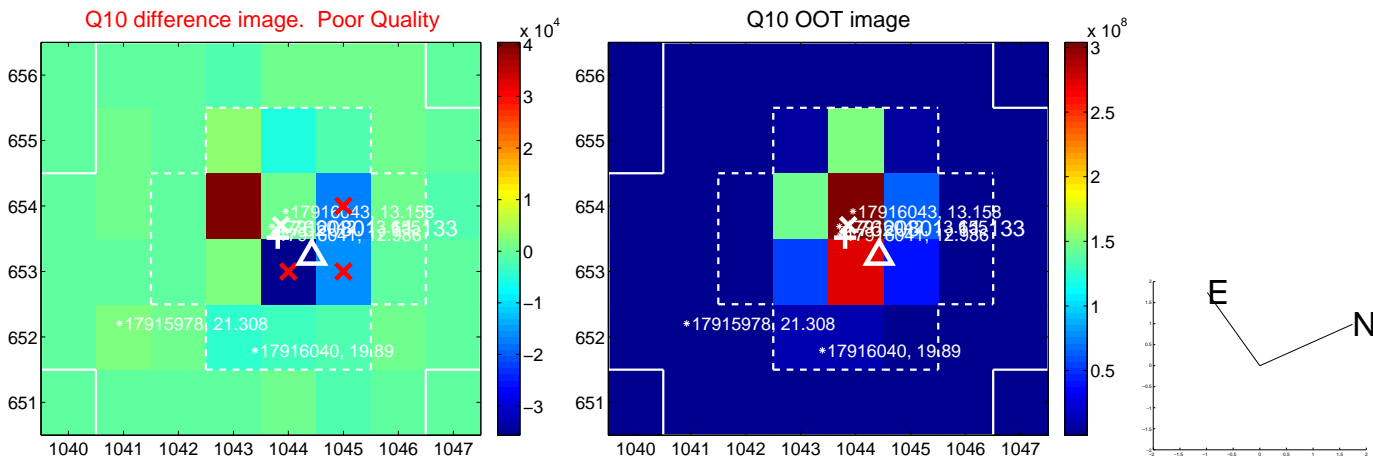
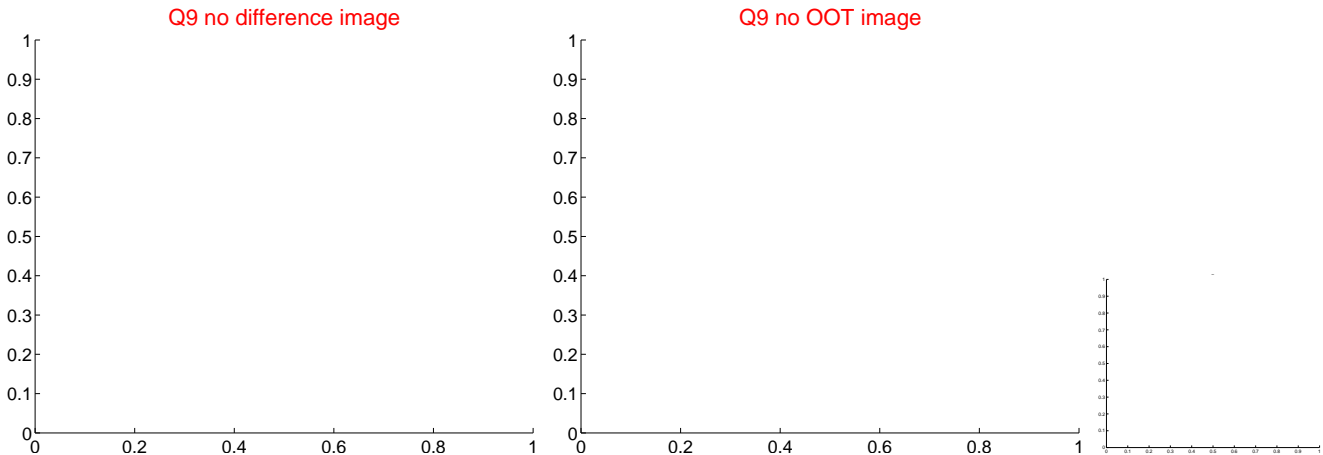
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



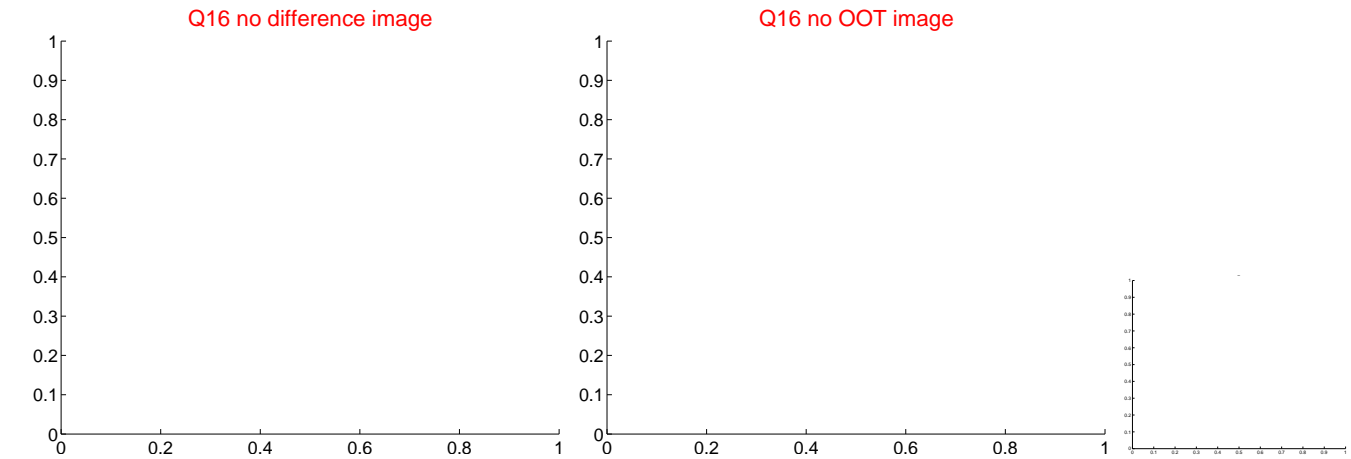
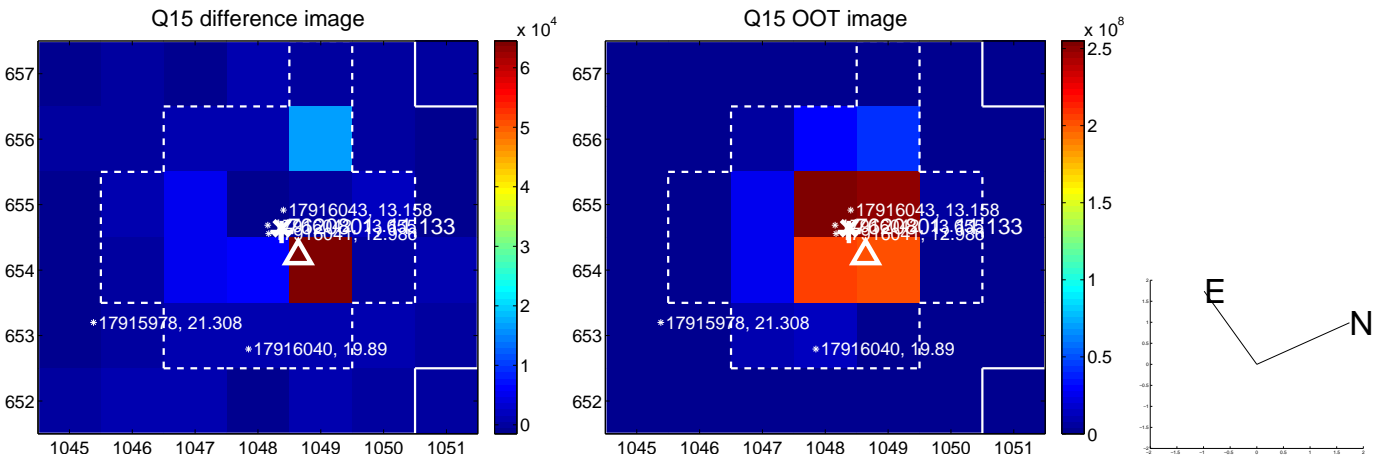
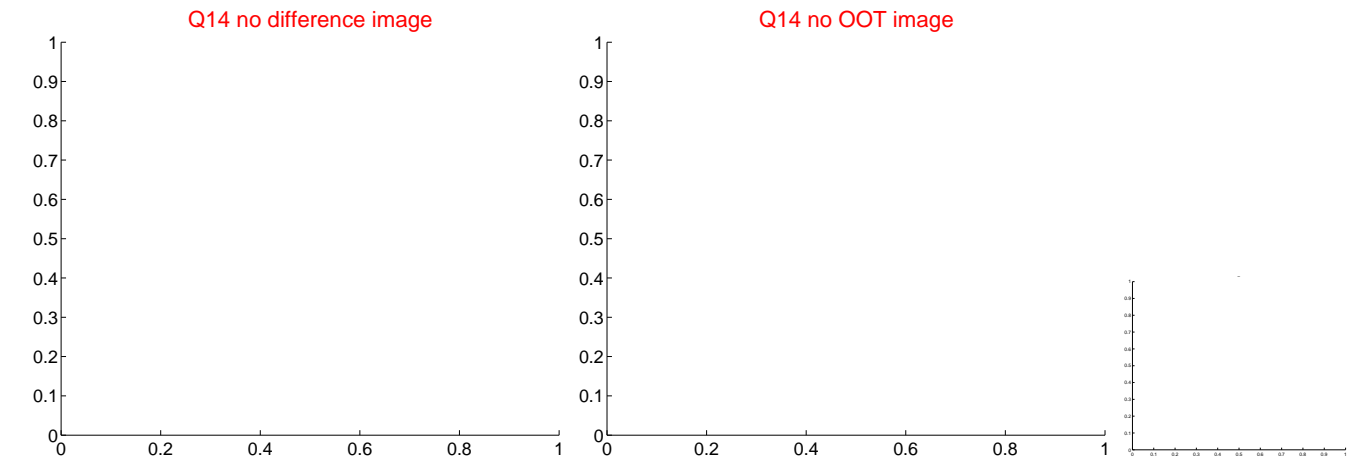
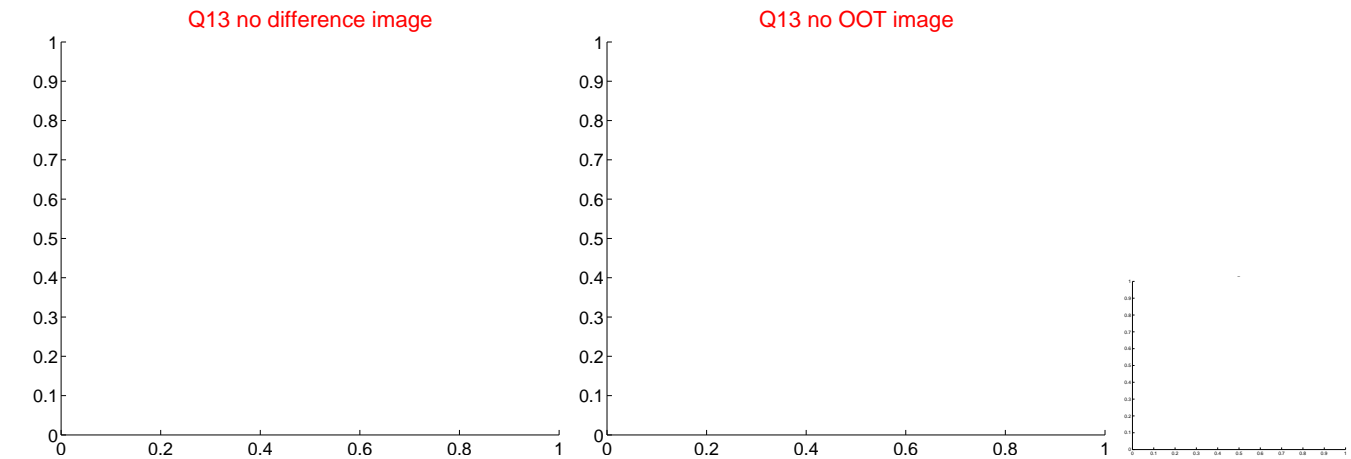
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



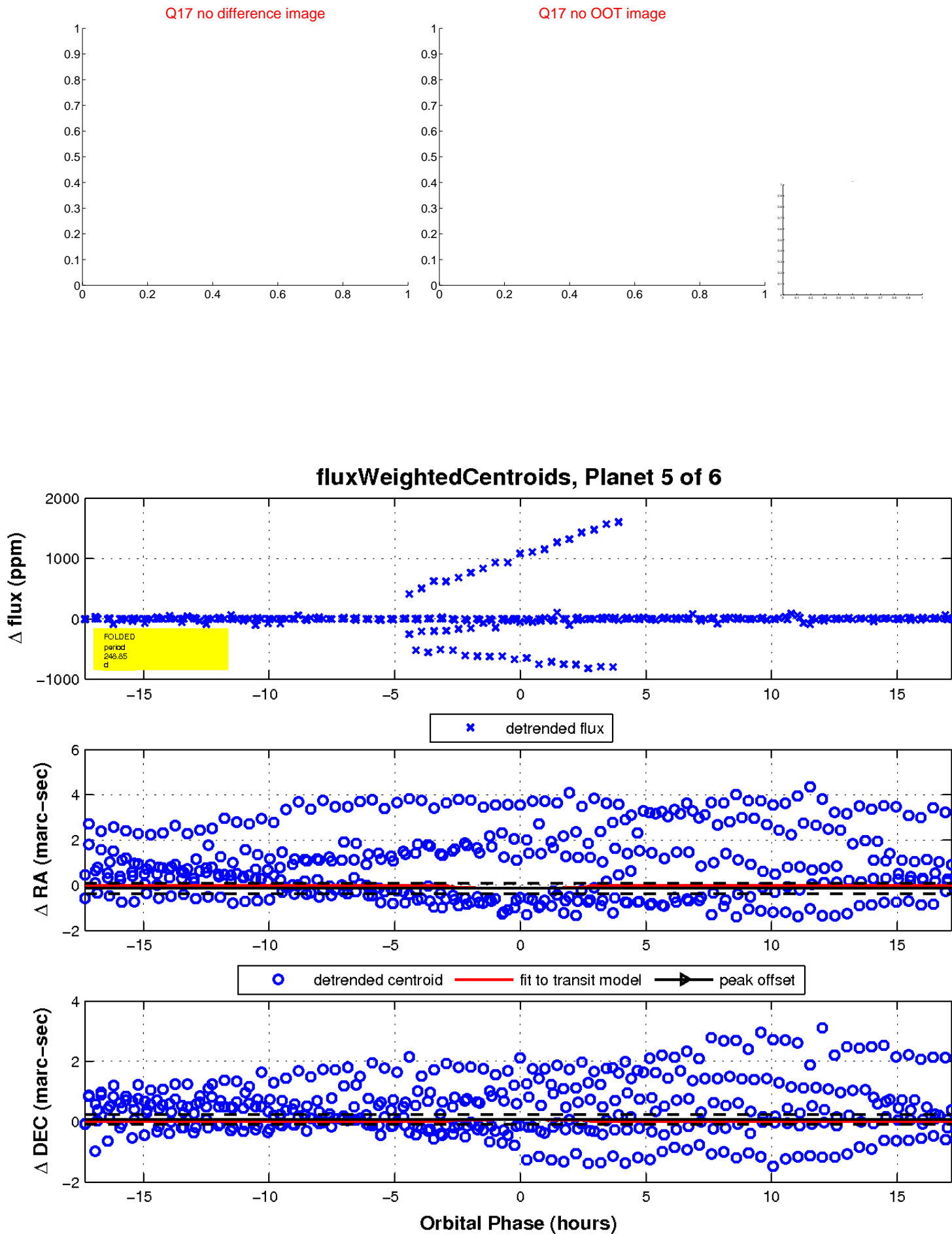
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

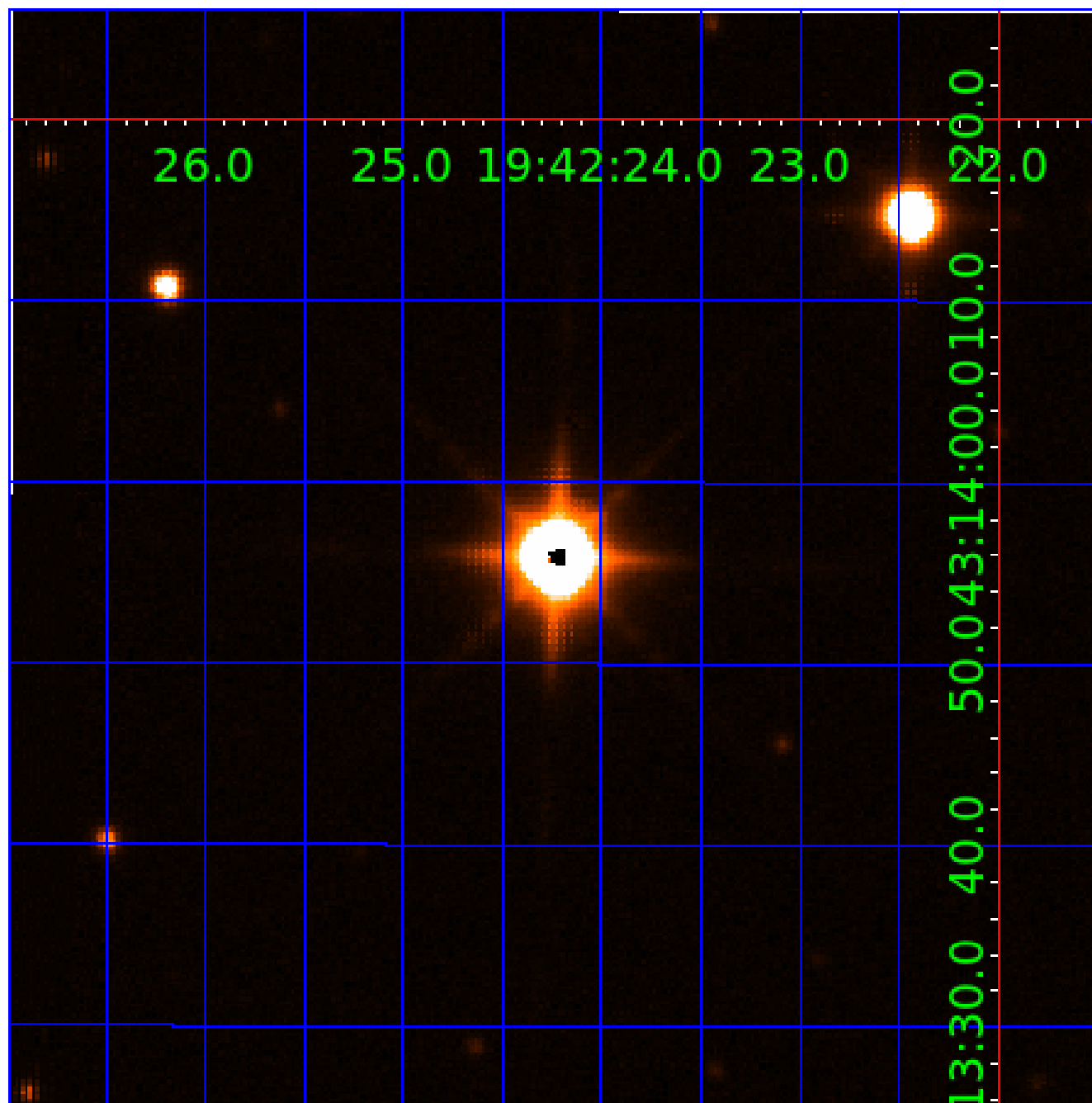


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007620801

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})
007620801-01	OBS	No	149.809648	183.197186	31.6	22.759	10.7	8.5	67.95	3839	37.83	1958.16
007620801-02	OBS	No	101.930288	194.044319	28.8	1.497	11.3	7.3	67.95	3839	34.08	3272.13
007620801-03	OBS	No	312.431315	211.107481	26.5	3.154	10.2	10.6	67.95	3839	44.21	734.90
007620801-04	OBS	No	155.036231	282.950918	49.2	15.000	7.9	-1.0	67.95	3839	44.28	1870.64
007620801-05	OBS	No	248.853873	221.614121	22.9	5.791	8.7	9.2	67.95	3839	41.25	995.35
007620801-06	OBS	No	423.961891	289.227453	29.7	14.963	8.3	6.6	67.95	3839	44.79	489.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007620801-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
007620801-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007620801-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007620801-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007620801-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

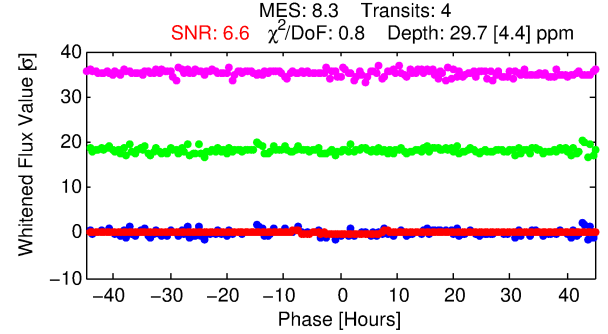
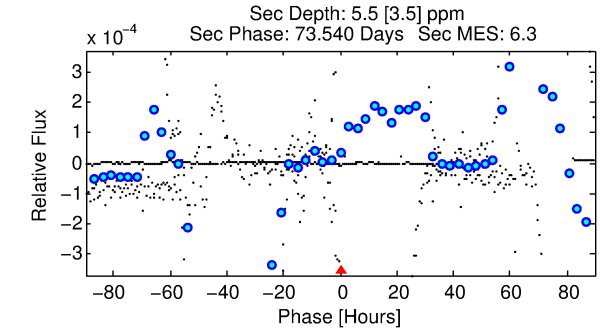
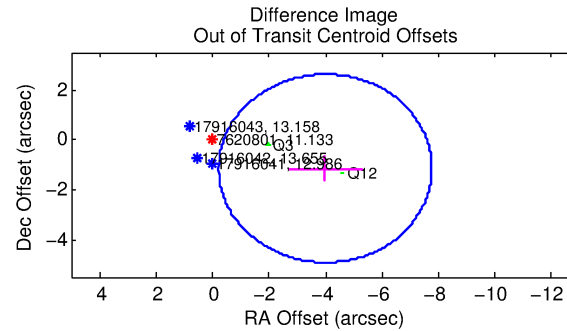
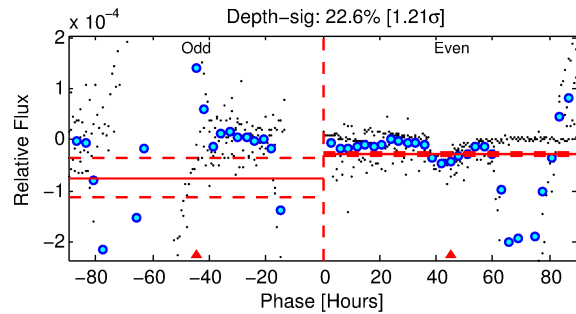
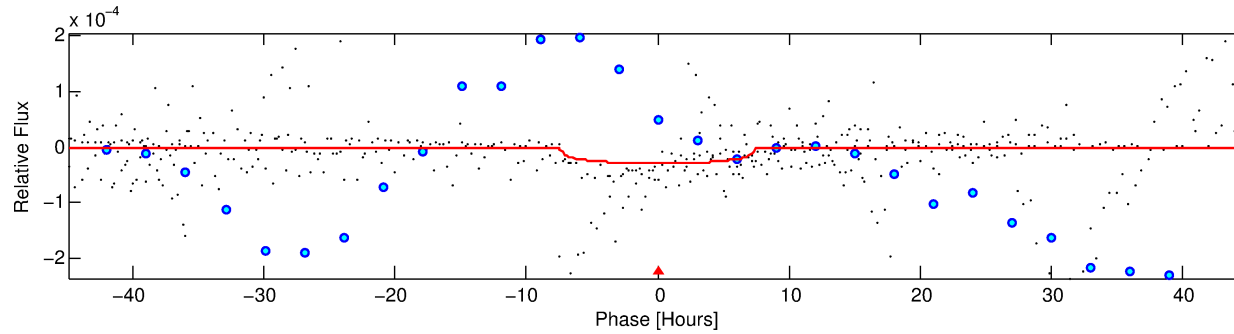
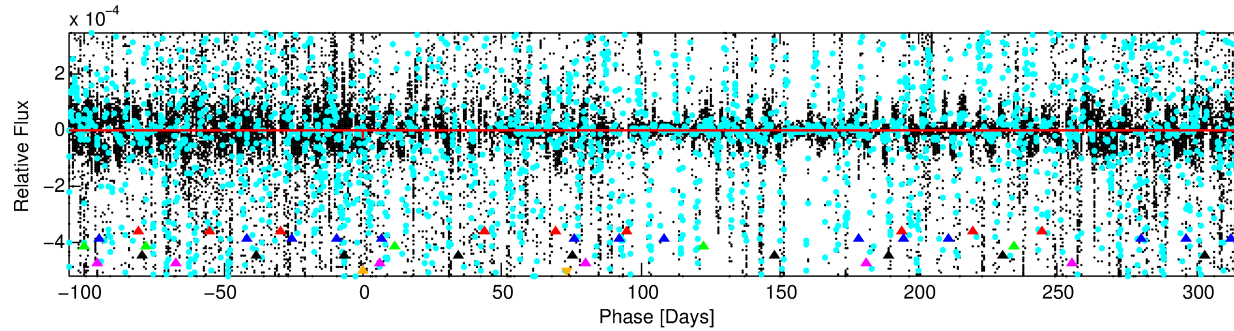
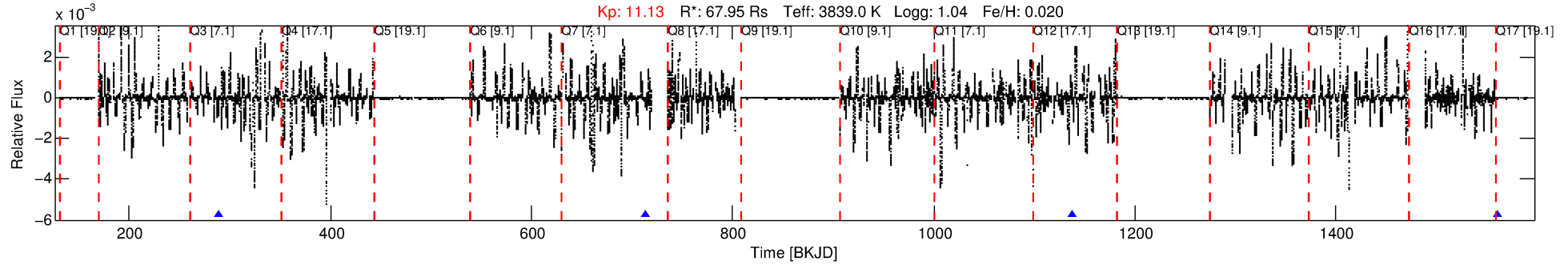
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007620801-06

No Significant Match Found

DV One-Page Summary

KIC: 7620801 Candidate: 6 of 6 Period: 423.962 d



DV Fit Results:

Period = 423.96189 [0.01021] d
Epoch = 289.2275 [0.0287] BKJD
Rp/R* = 0.0060 [0.0022]
a/R* = 112.27 [123.28]
b = 0.86 [0.33]
Seff = 489.18 [91.29]
Teq = 1199 [56] K
Rp = 44.79 [19.12] Re
a = 1.3553 [0.1977] AU
Ag = 2.75 [2.71] [0.64 σ]
Teffp = 2387 [586] K [2.02 σ]

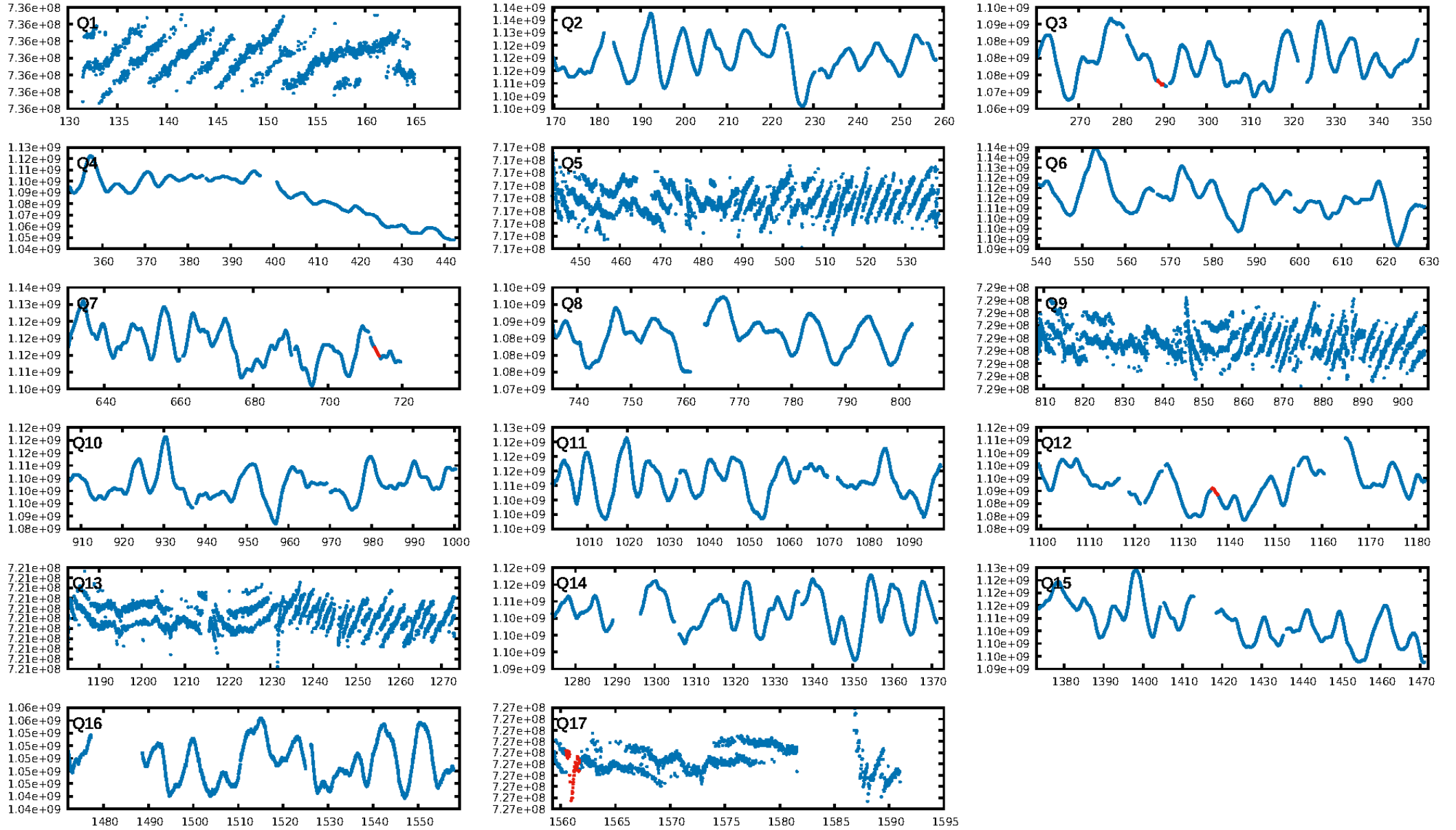
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [175.05 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.90e-06
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.97
Centroid-sig: 71.2%
Centroid-so: 2.593 arcsec [0.42 σ]
OotOffset-rm: 4.152 arcsec [3.30 σ]
KicOffset-rm: 4.331 arcsec [3.94 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

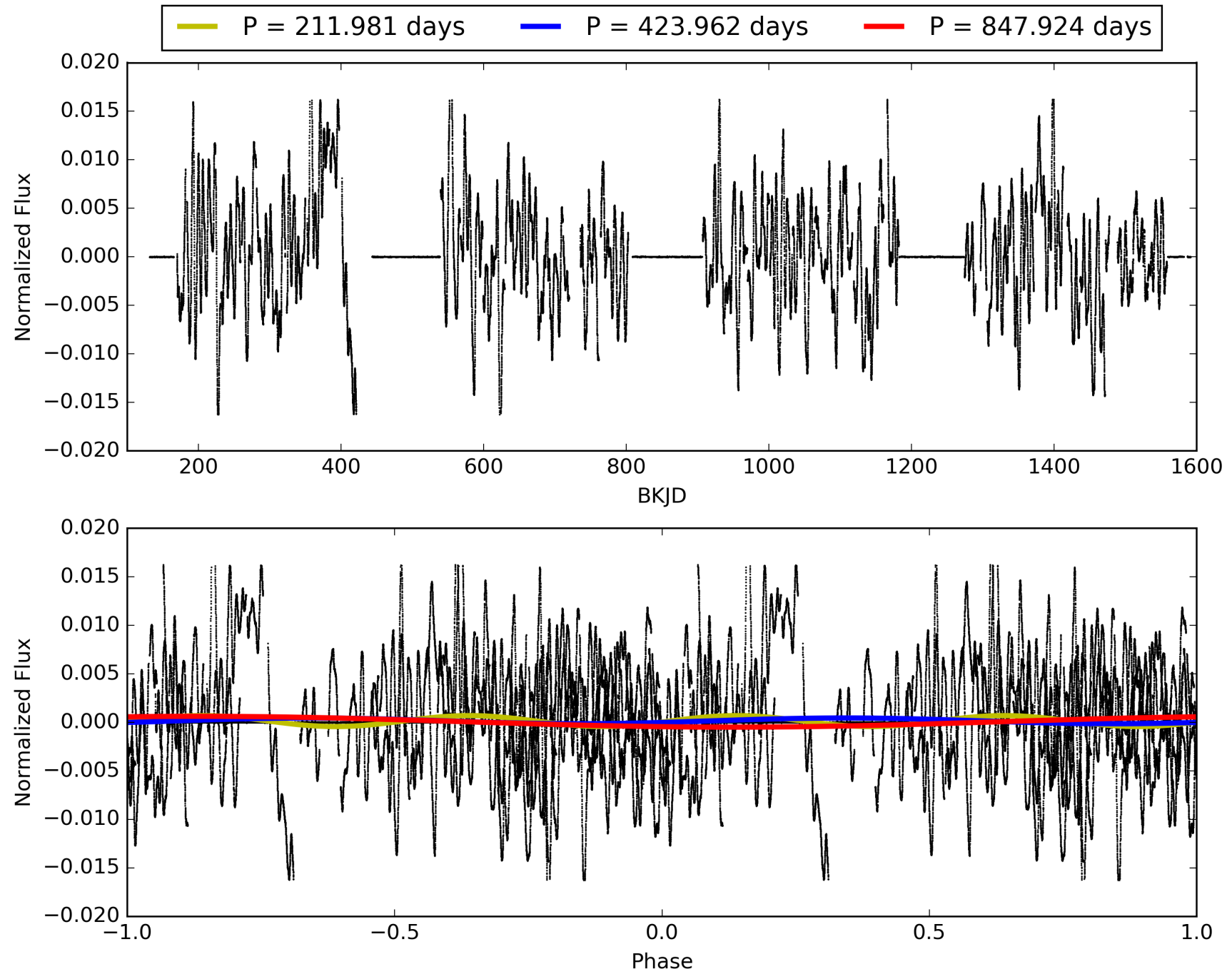
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:13:48 Z

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

TCE 007620801-06, PDC Light Curves

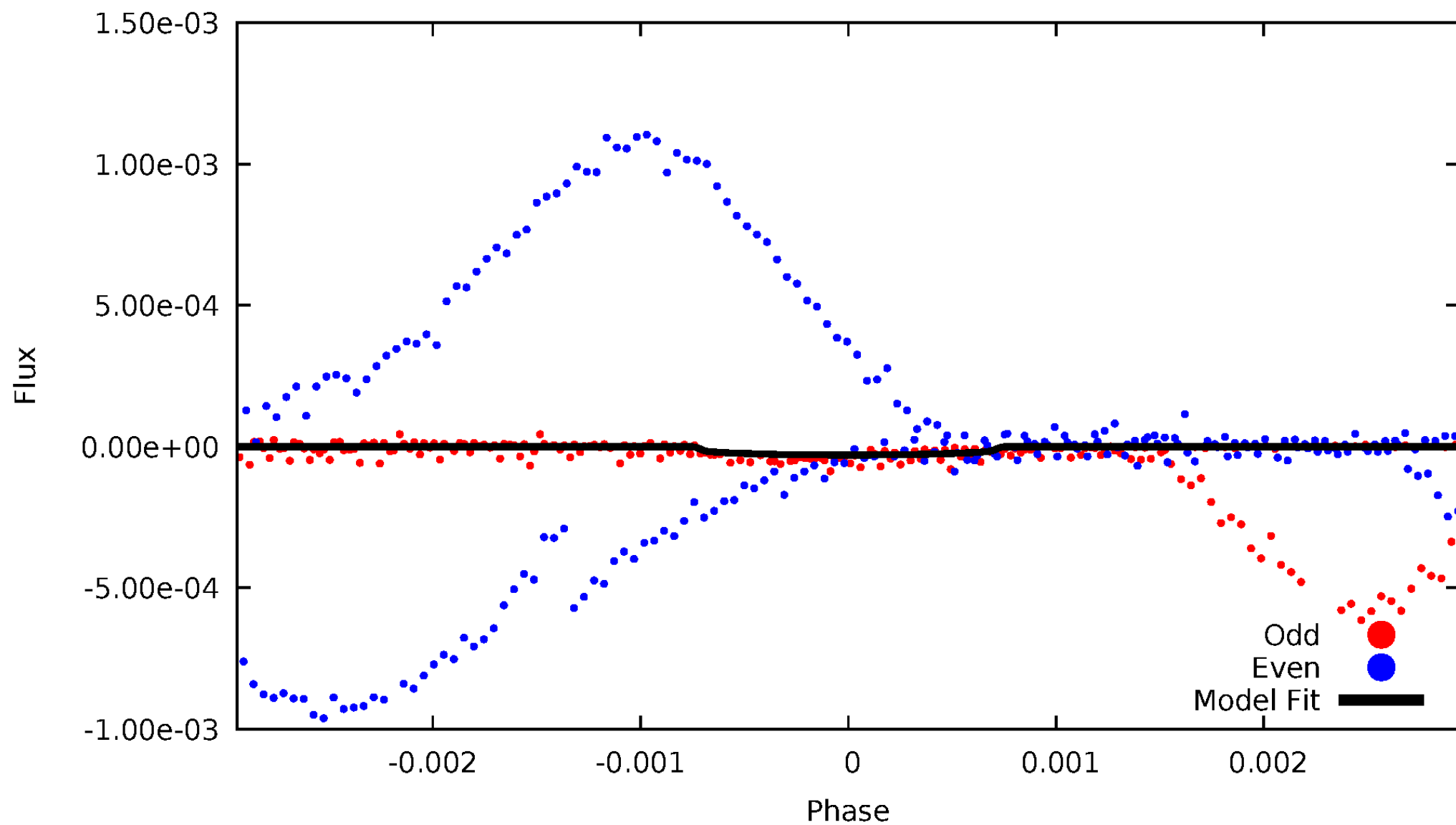


TCE 007620801-06



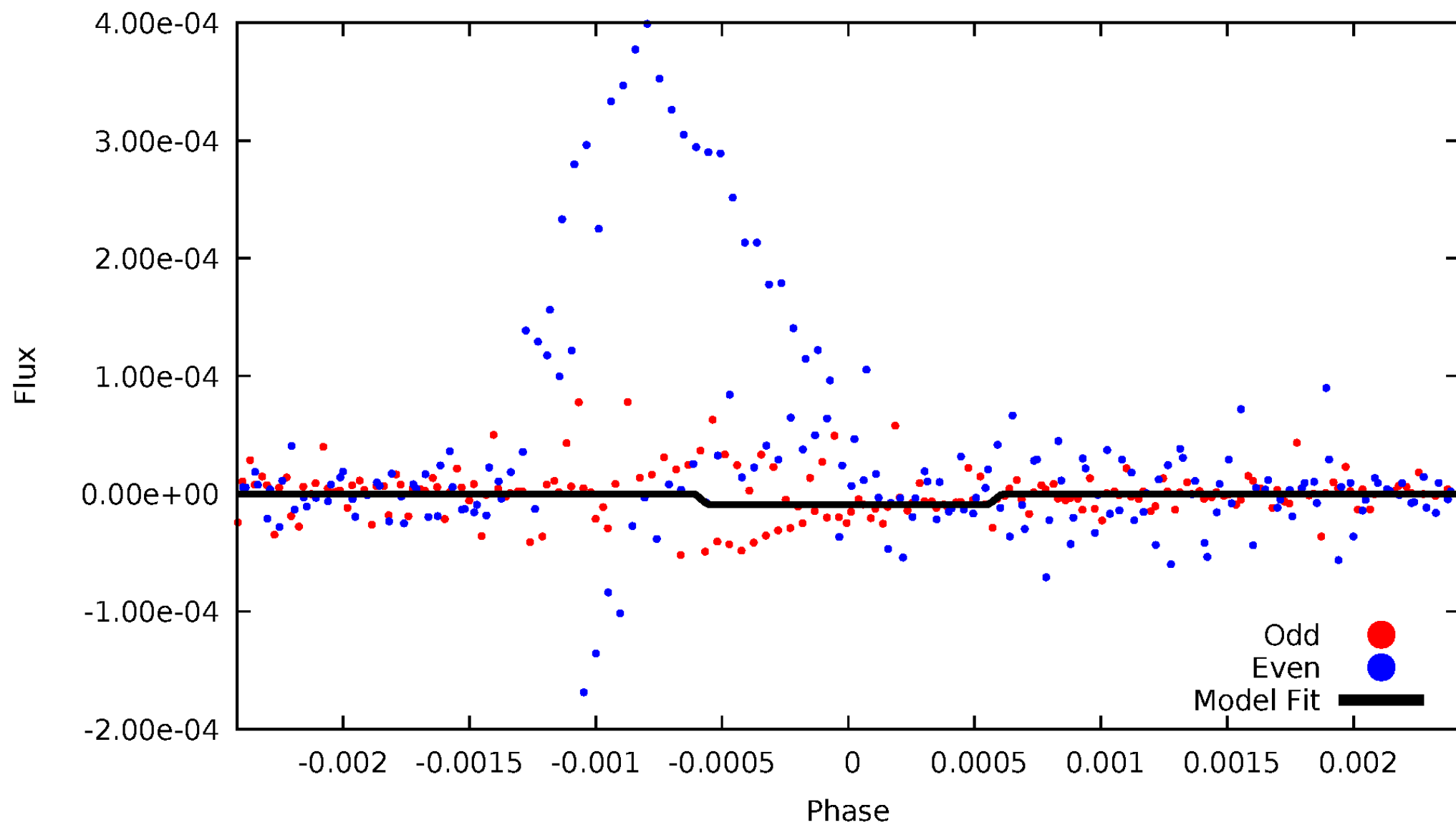
DV Odd/Even

TCE 007620801-06



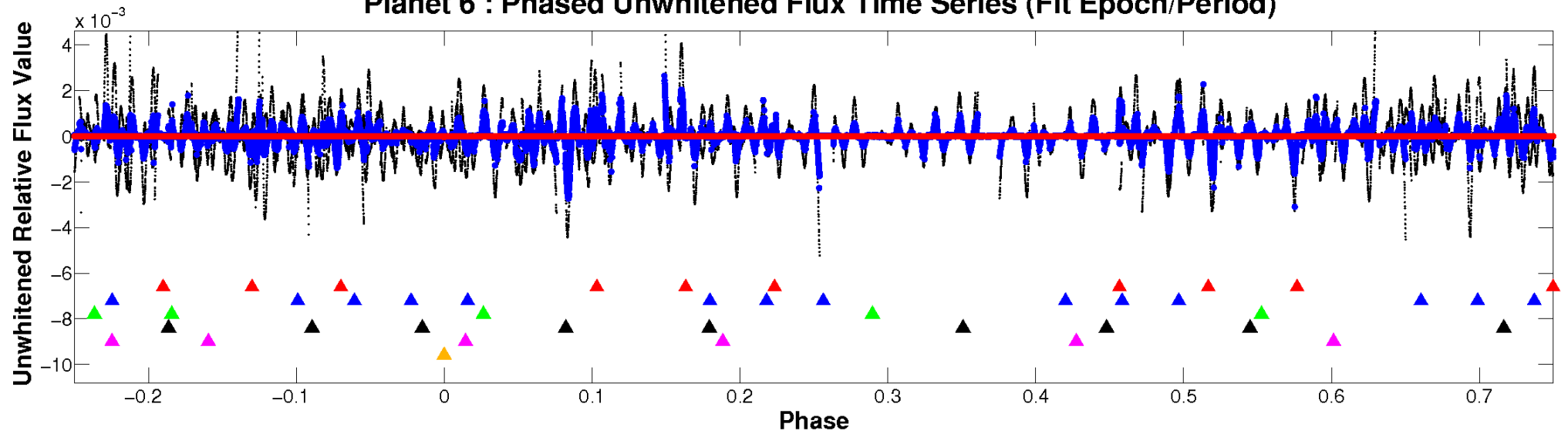
ALT Odd/Even

TCE 007620801-06

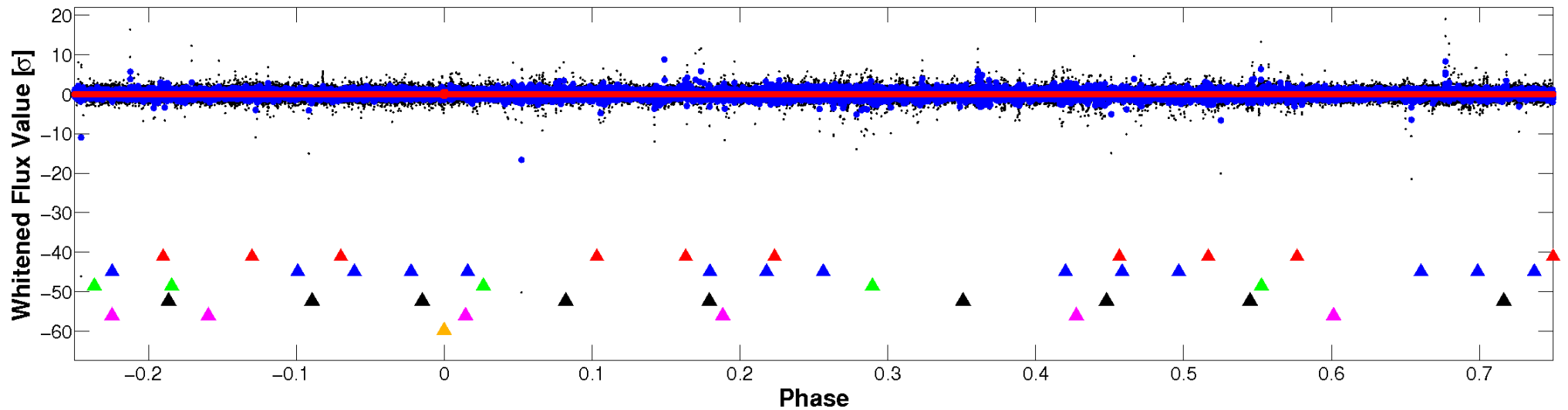


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

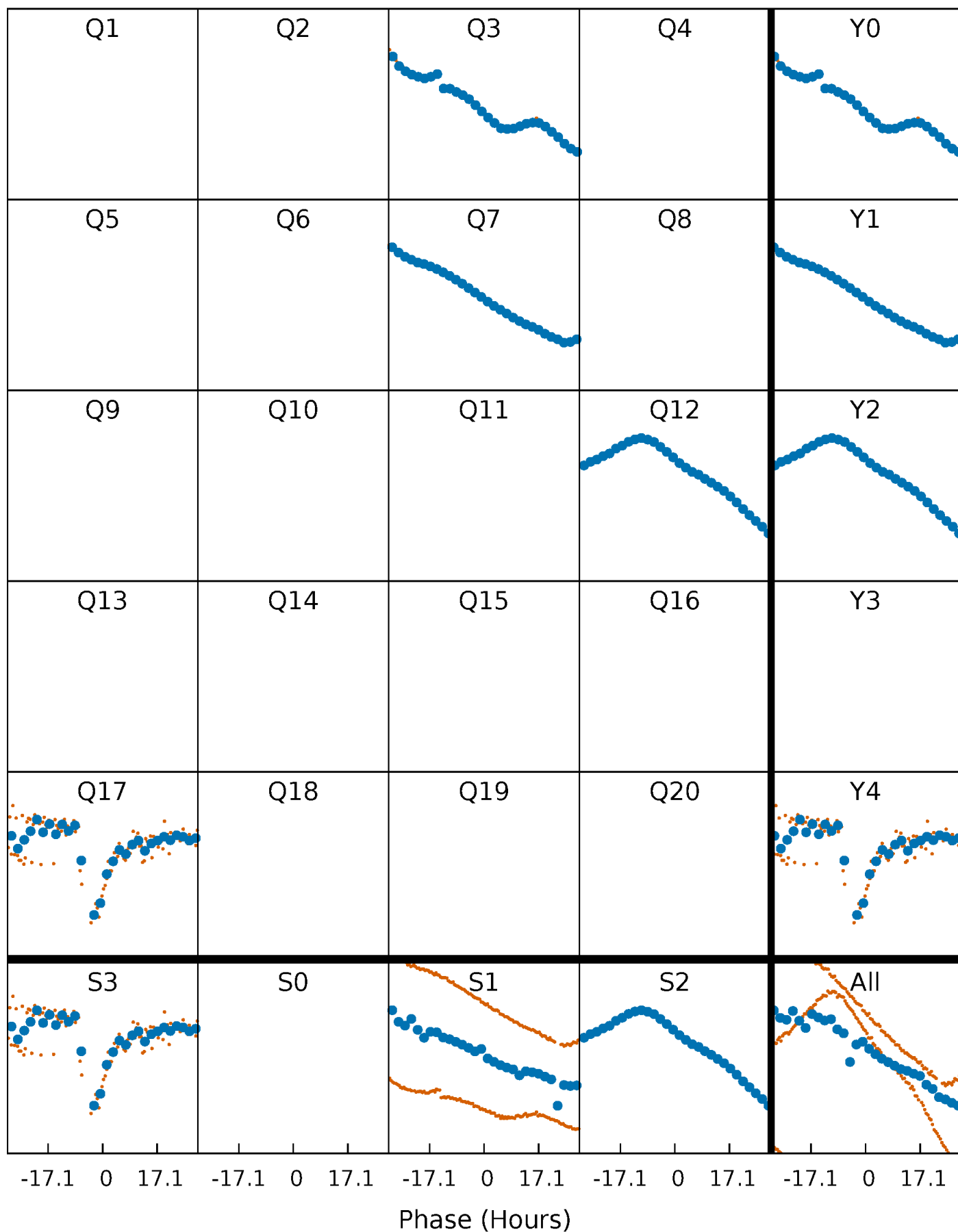


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



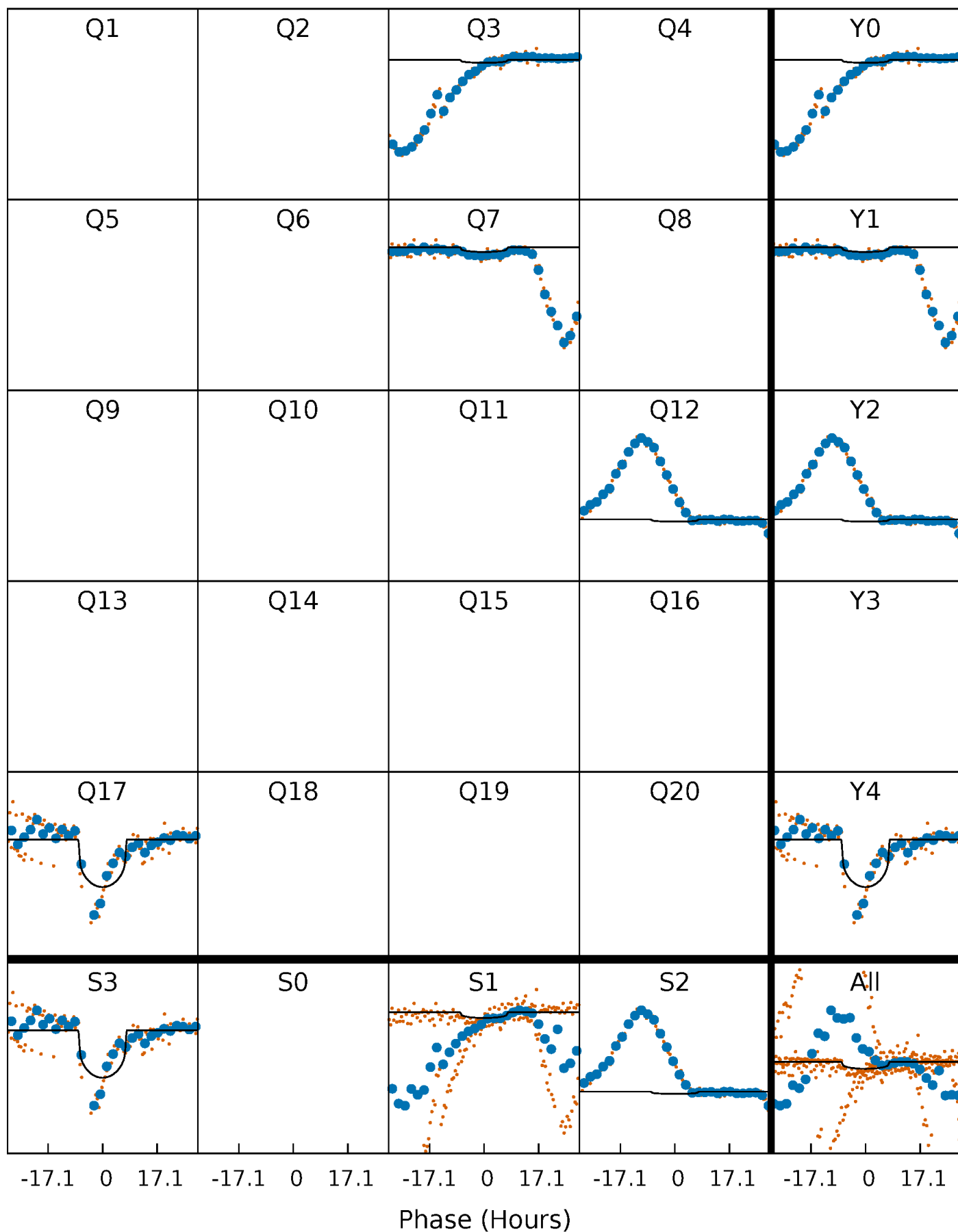
PDC Quarter-Phased Transit Curves

TCE 007620801-06 $P=423.961891$ Days $T_0=289.227453$ (BKJD)



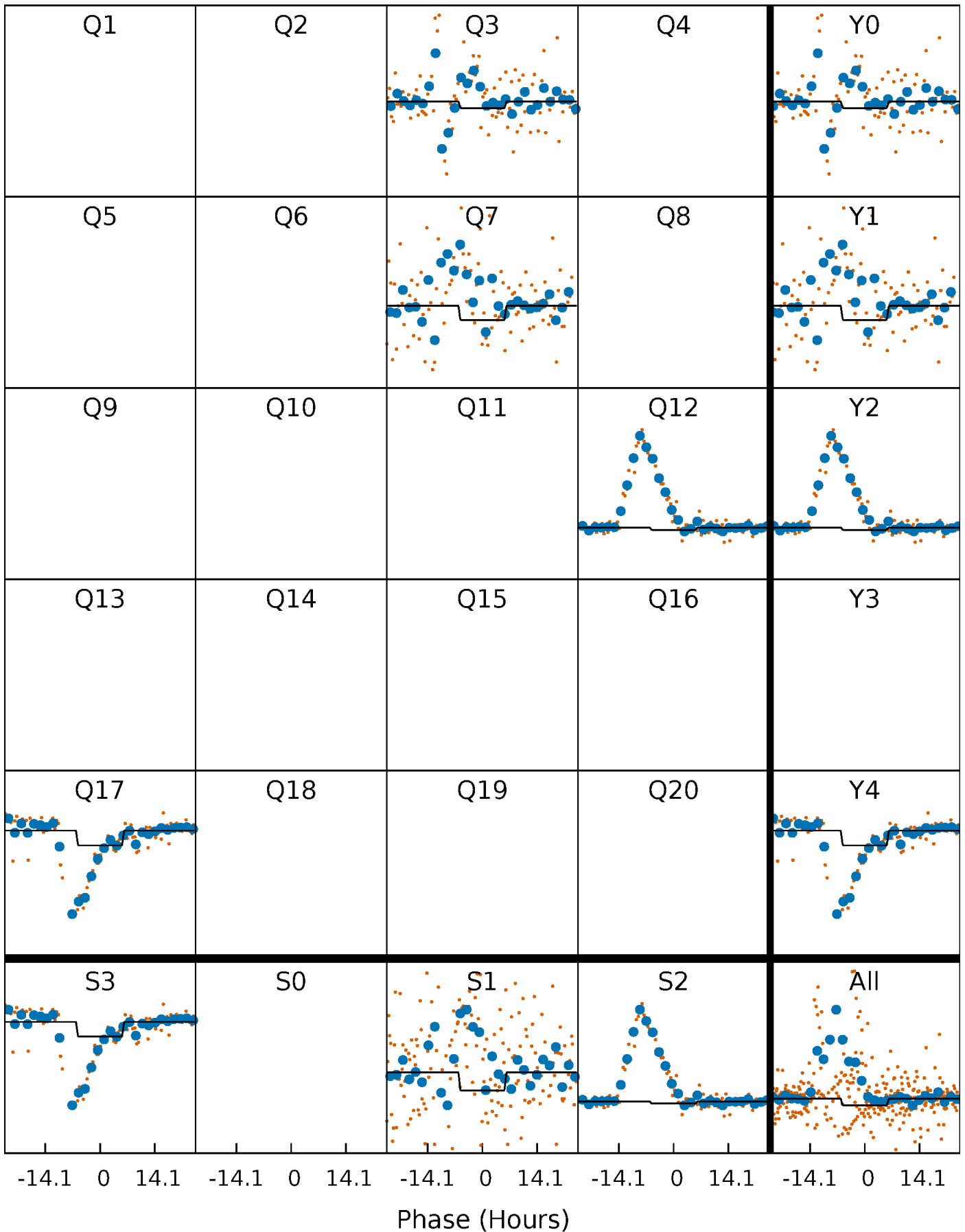
DV Quarter-Phased Transit Curves

TCE 007620801-06 $P=423.961891$ Days $T_0=289.227453$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

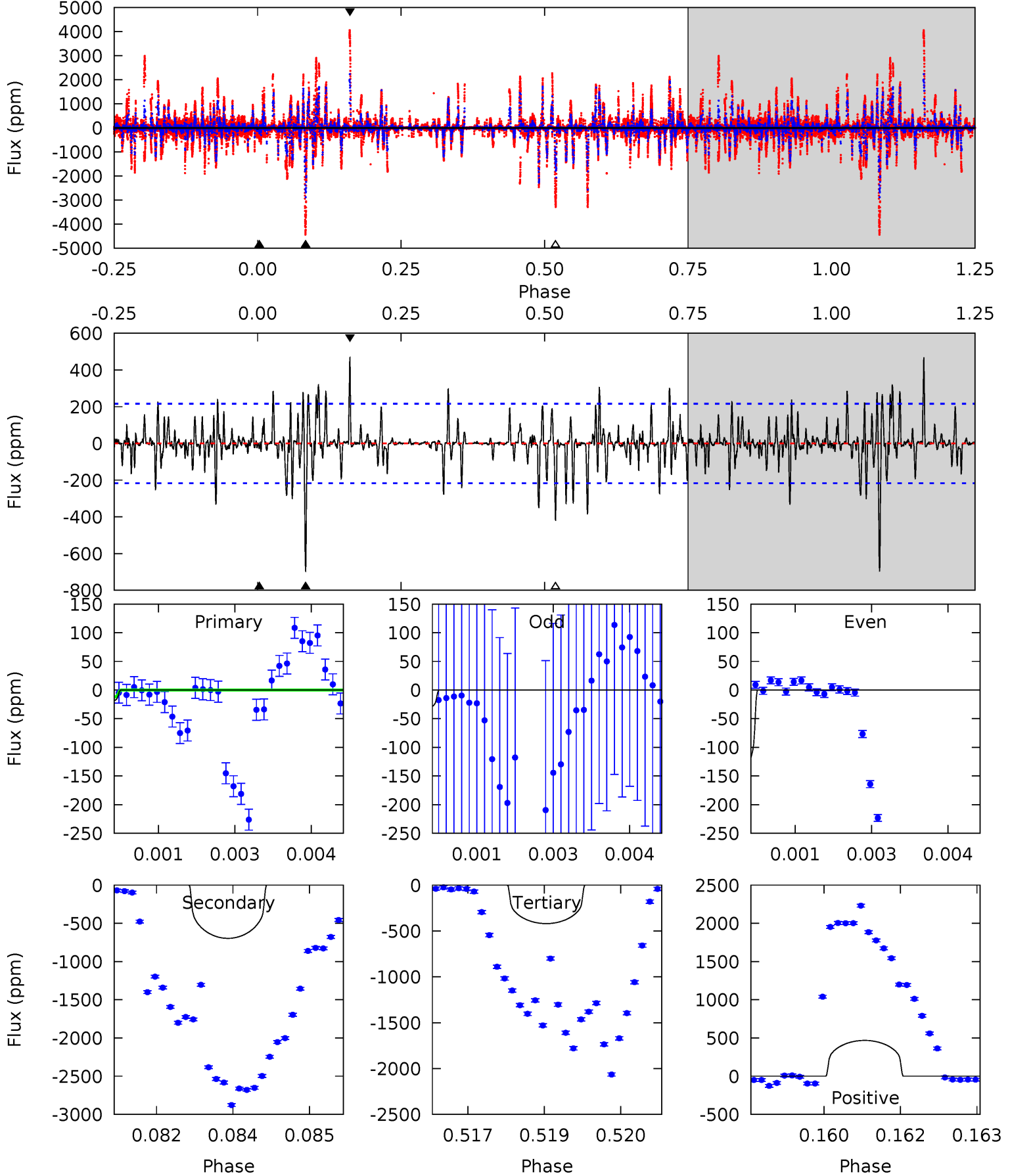
TCE 007620801-06 $P=424.044048$ Days $T_0=289.111818$ (BKJD)



DV Model-Shift Uniqueness Test

007620801-06, P = 423.961891 Days, E = 289.227453 Days

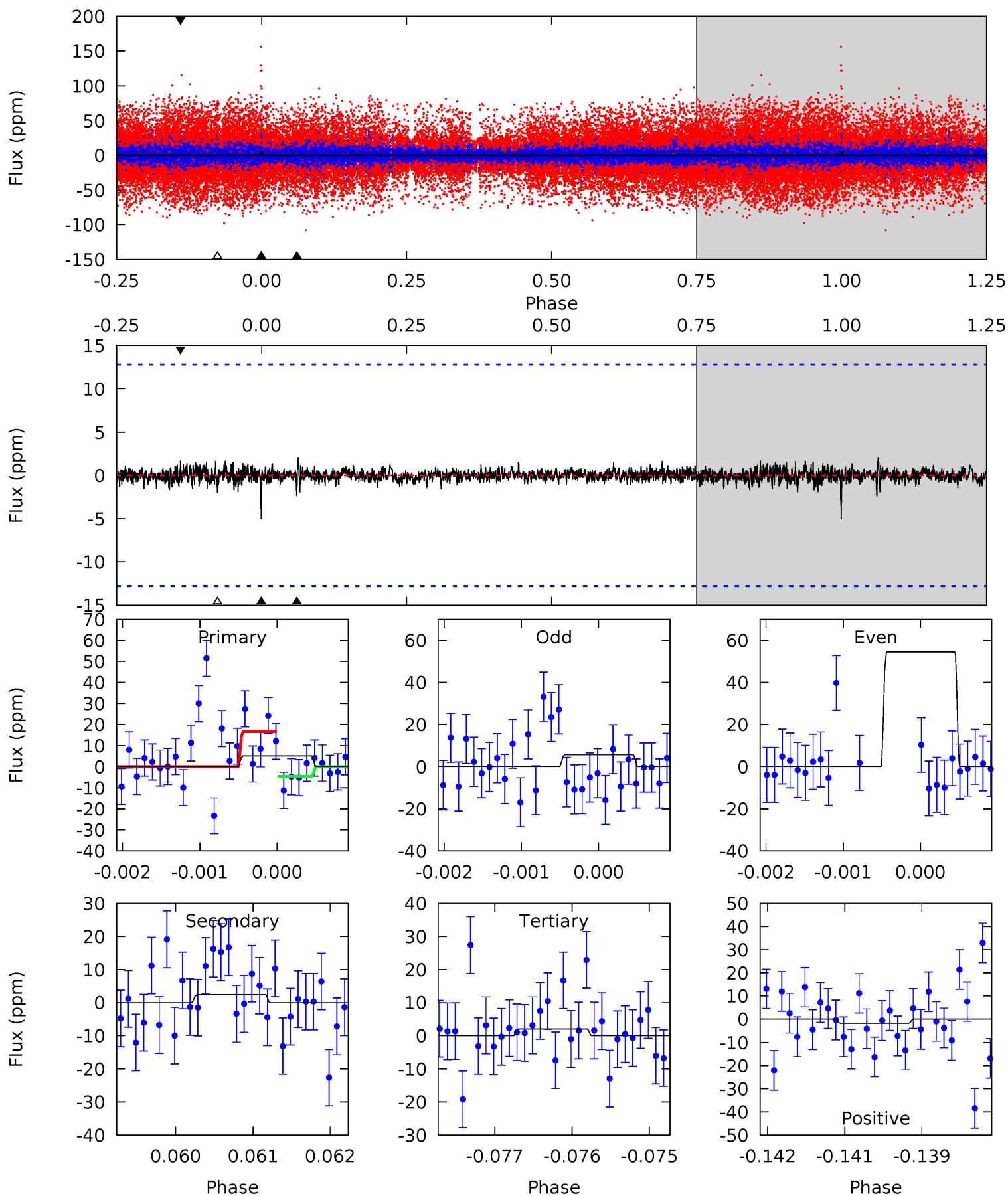
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.70	17.3	10.4	11.6	5.38	3.18	1.87	-9.74	-10.9	6.89	5.69	1.05	-1.64	0.40	0.27



Alt Model-Shift Uniqueness Test

007620801-06, P = 424.044048 Days, E = 289.111818 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.14	1.00	0.86	0.72	5.42	3.23	0.19	1.28	1.42	0.14	0.28	10.9	1.90	0.29	2.55



Stellar Parameters For KIC 007620801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3839^{+86}_{-105}	$1.040^{+0.030}_{-0.030}$	$0.020^{+0.200}_{-0.250}$	$67.952^{+3.262}_{-14.678}$	$1.847^{+1.396}_{-0.698}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+1000%/-1250%	+5%/-22%	+76%/-38%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007620801-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-697 ± 40	$42.99^{+17.74}_{-17.27}$	1661^{+53}_{-55}	7274^{+2608}_{-1182}	362^{+584}_{-179}
Alt.	-2 ± 2	$23.91^{+15.31}_{-13.50}$	1662^{+53}_{-53}	2902^{+996}_{-4814}	$3.428^{+18.101}_{-3.212}$

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 $A_{obs} \gg 1.0$

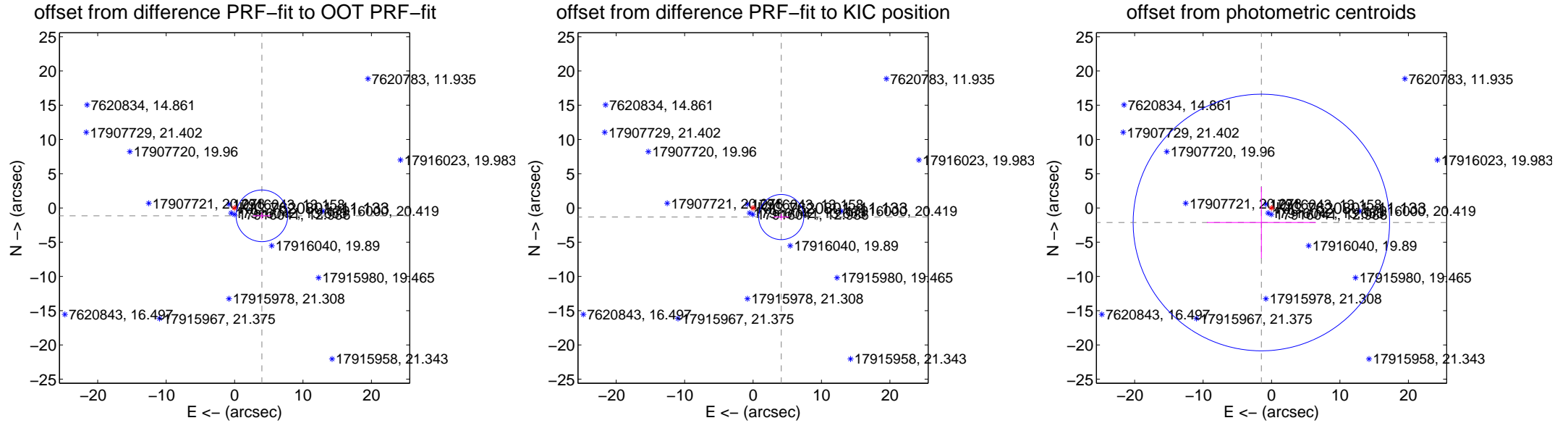
DV Centroid Data

Supplemental centroid analysis for 007620801-06. **Kepler magnitude: 11.13.** Transit SNR 6.57

There are 1 quarters with good PRF difference image offsets

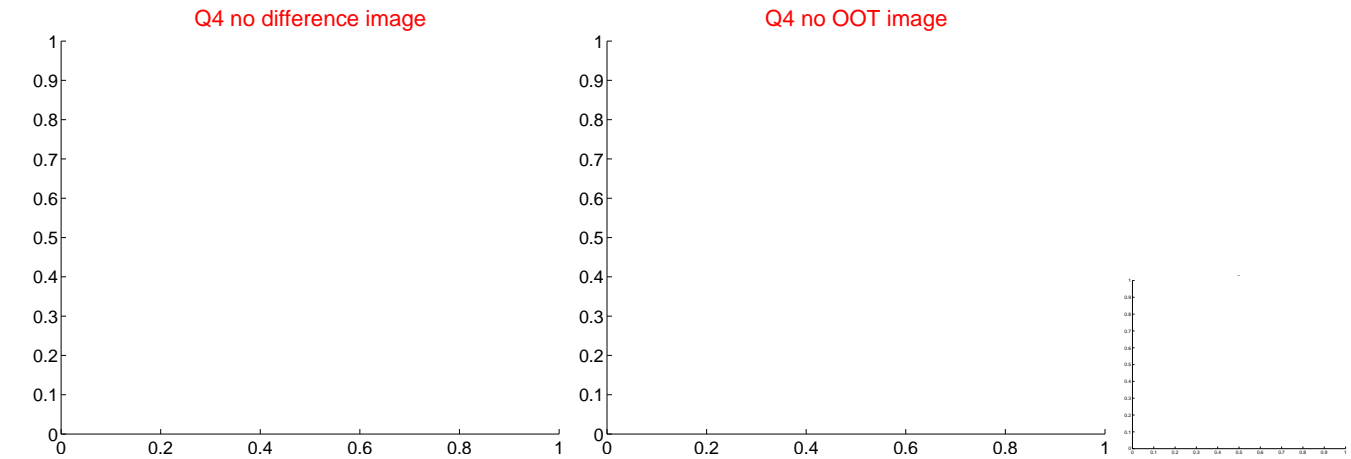
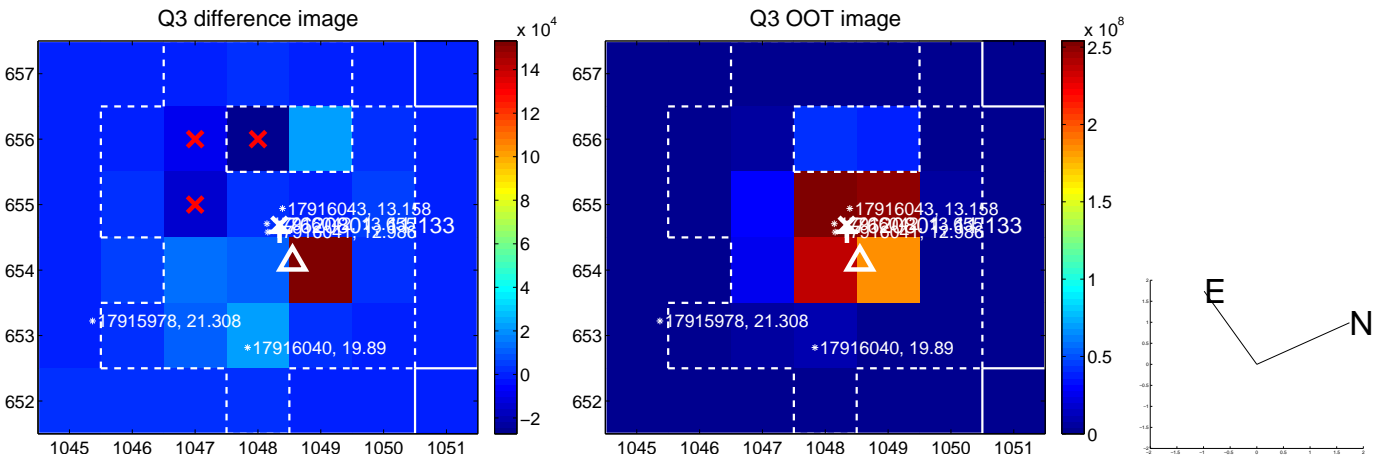
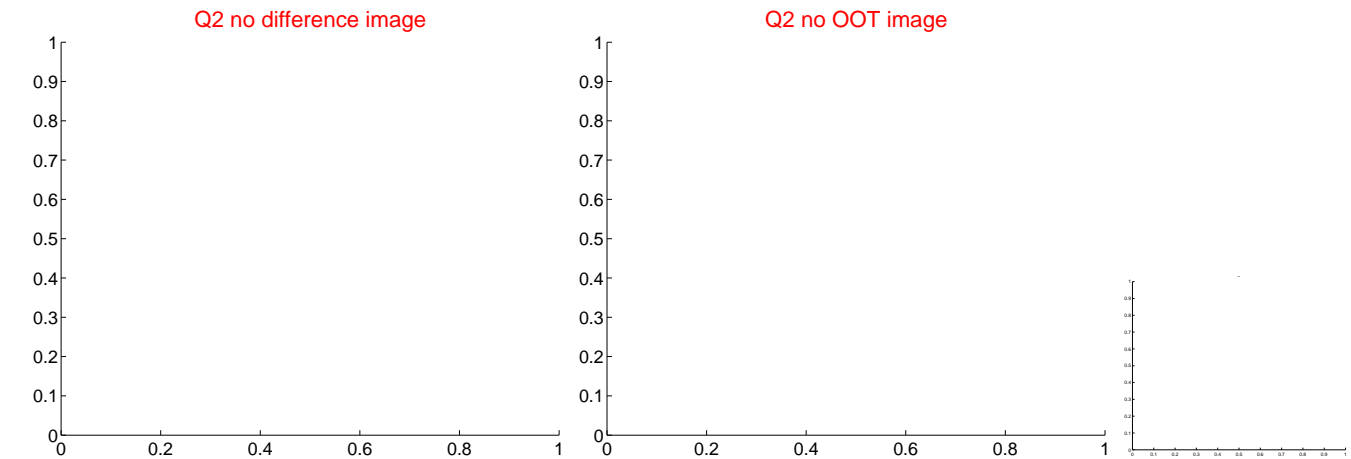
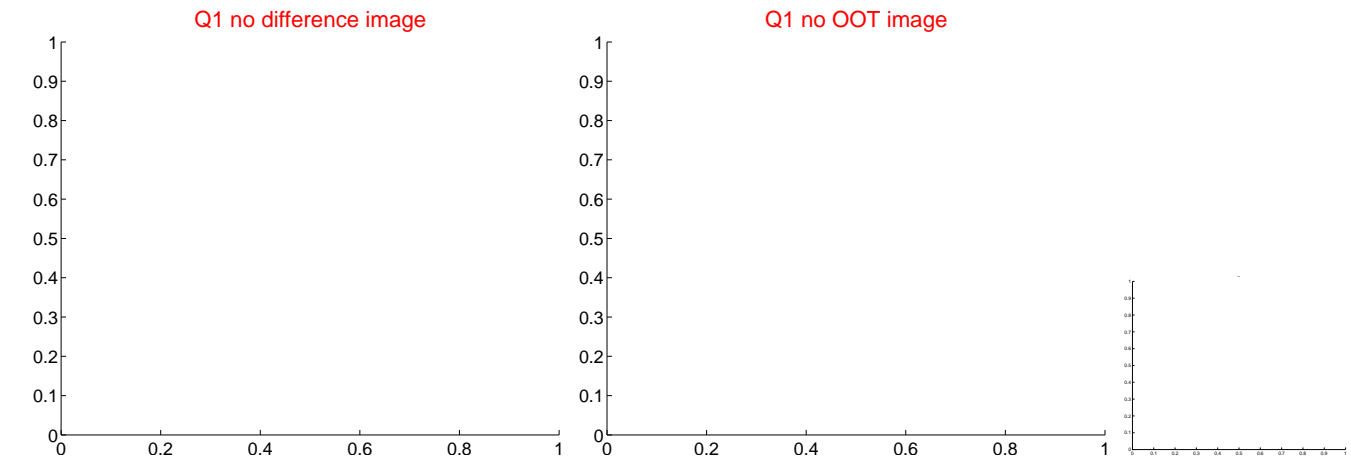
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.152 \pm 1.257	3.30	-3.989 \pm 1.301	-1.150 \pm 0.489
PRF-fit source offset from KIC position	4.331 \pm 1.099	3.94	-4.122 \pm 1.144	-1.328 \pm 0.475
photometric centroid source offset	2.59 \pm 6.25	0.42	1.48 \pm 7.97	-2.13 \pm 5.21



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.

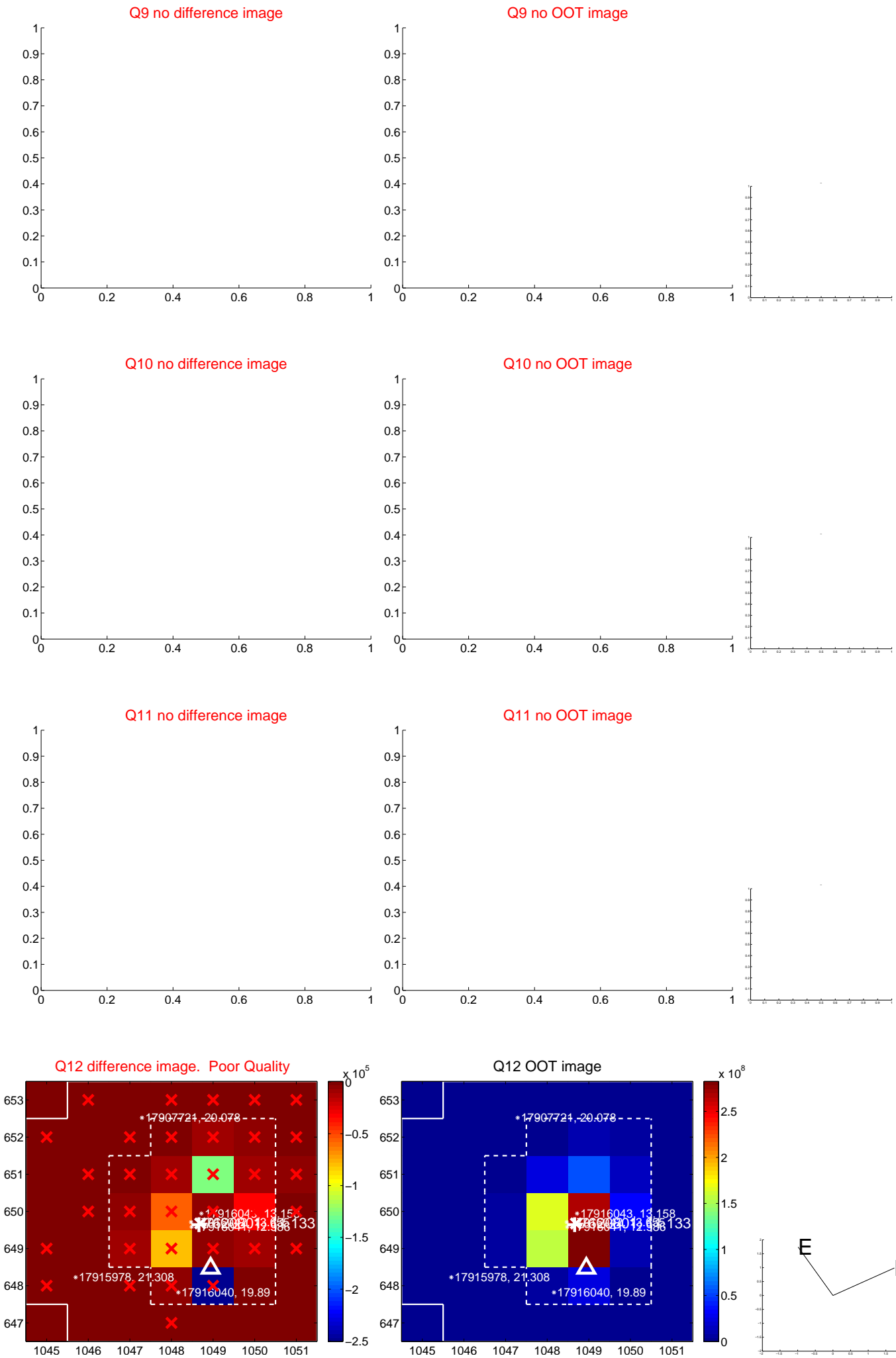
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



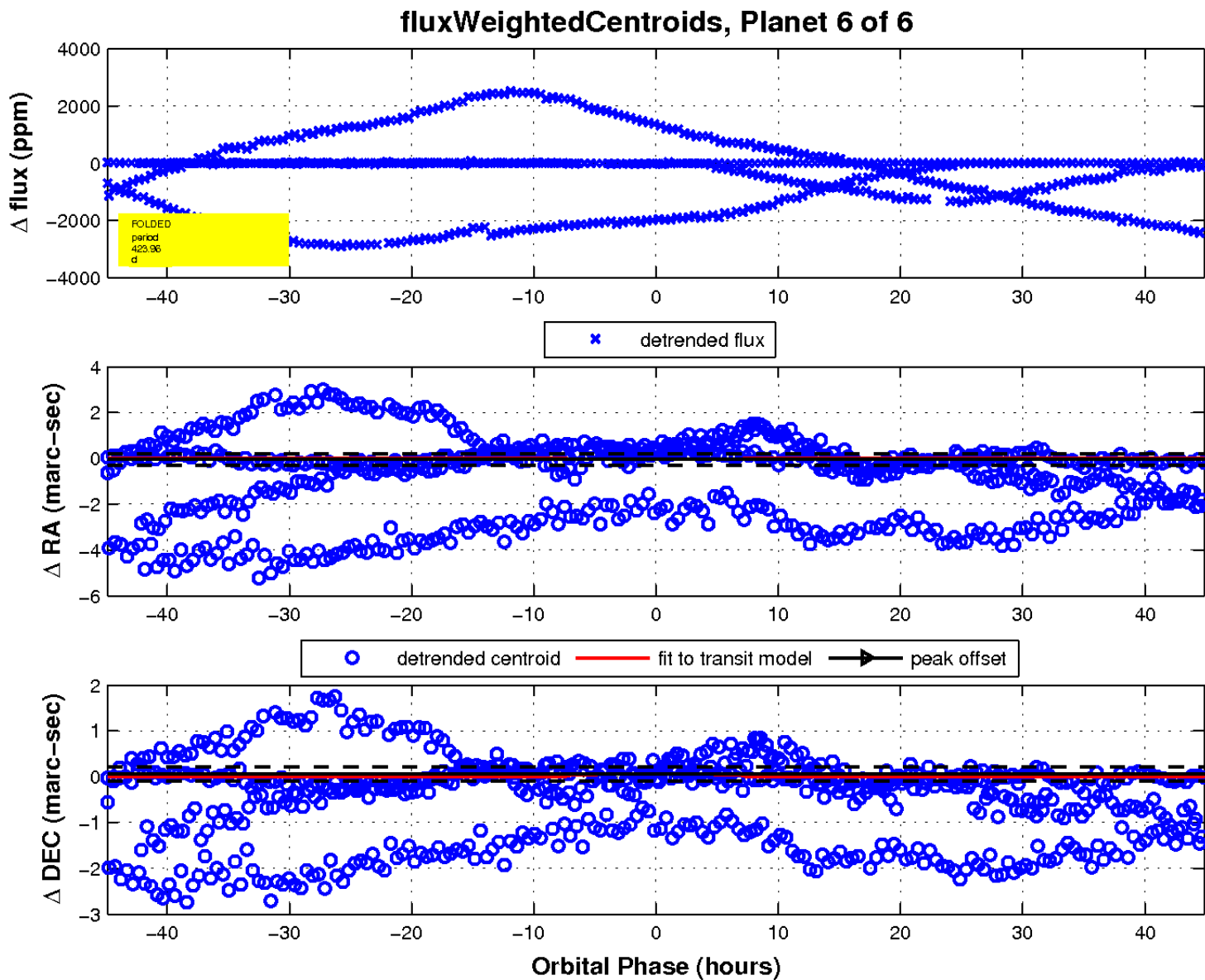
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

