

KIC 010683367

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})
010683367-01	OBS	No	0.886081	132.427990	76.1	5.394	8.1	9.3	0.85	5769	0.77	2393.16
010683367-02	OBS	No	75.791077	186.919068	1441.4	6.201	13.6	10.8	0.85	5769	3.25	6.35
010683367-03	OBS	No	28.377623	151.574576	521.5	5.527	7.8	7.0	0.85	5769	2.12	23.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010683367-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
010683367-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010683367-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS— HALO_GHOST

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

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

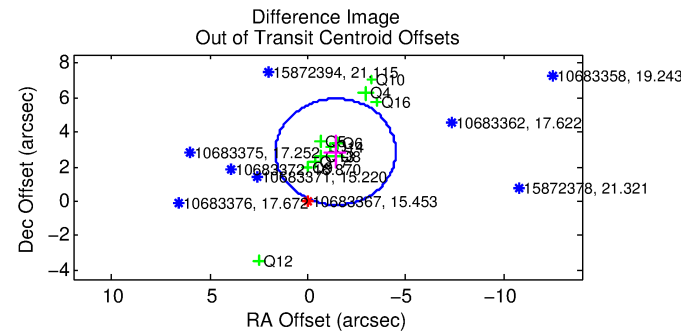
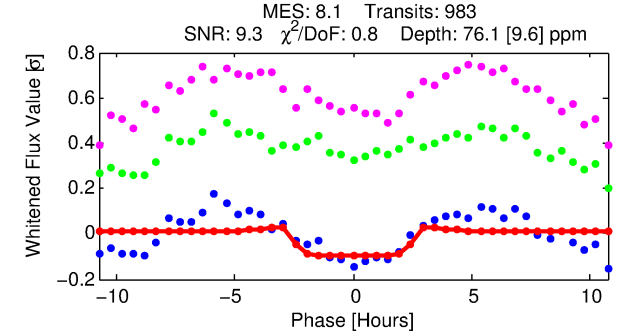
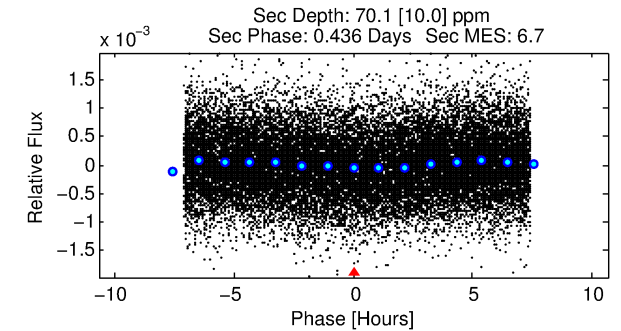
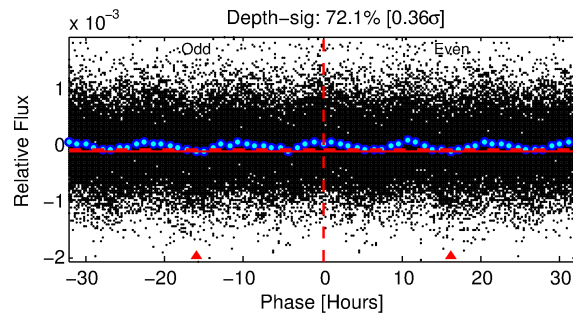
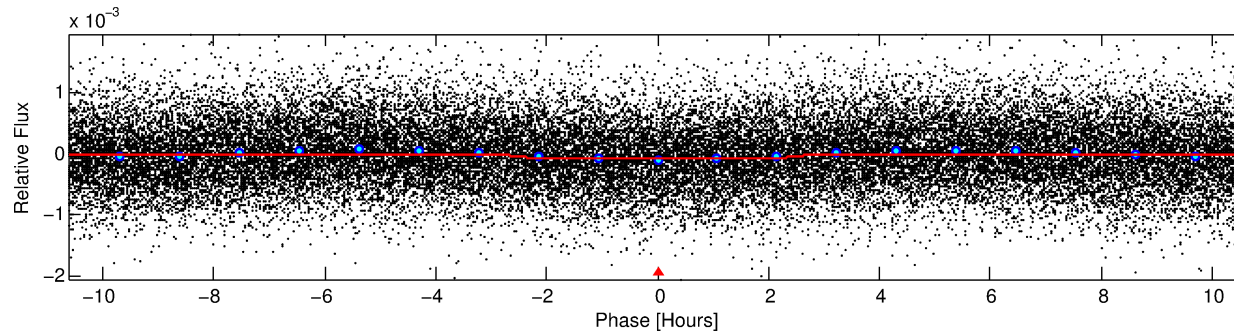
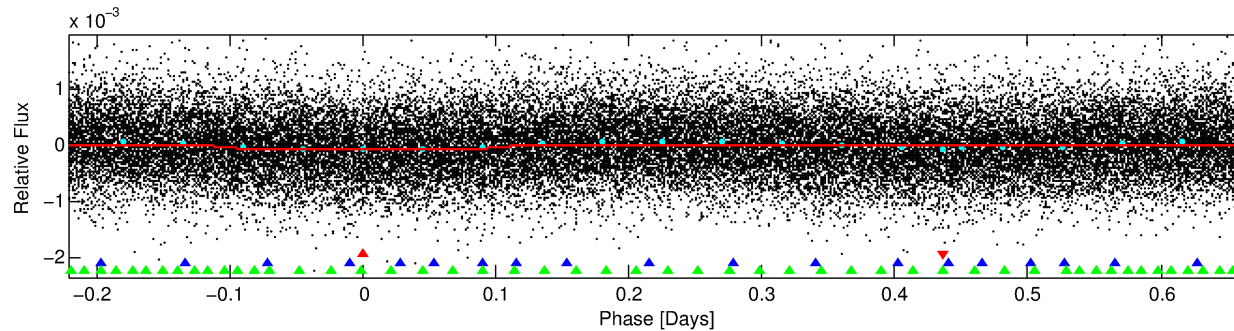
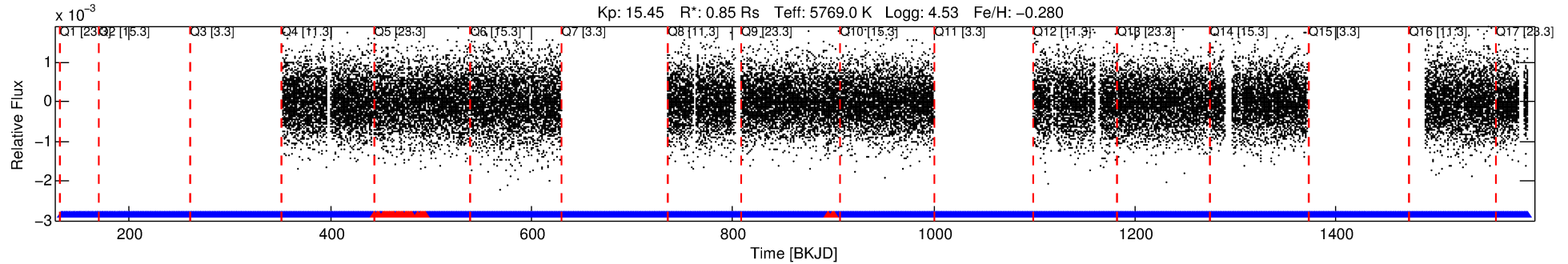
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010683367-01

No Significant Match Found

DV One-Page Summary

KIC: 10683367 Candidate: 1 of 3 Period: 0.886 d



DV Fit Results:

Period = 0.88608 [0.00001] d
Epoch = 132.4280 [0.0049] BKJD
Rp/R* = 0.0083 [0.0082]
a/R* = 1.29 [2.33]
b = 0.58 [5.26]
Seff = 2393.15 [850.57]
Teq = 1783 [158] K
Rp = 0.77 [0.79] Re
a = 0.0174 [0.0040] AU
Ag = 19.50 [39.09] [0.47 σ]
Teffp = 5795 [2870] K [1.40 σ]

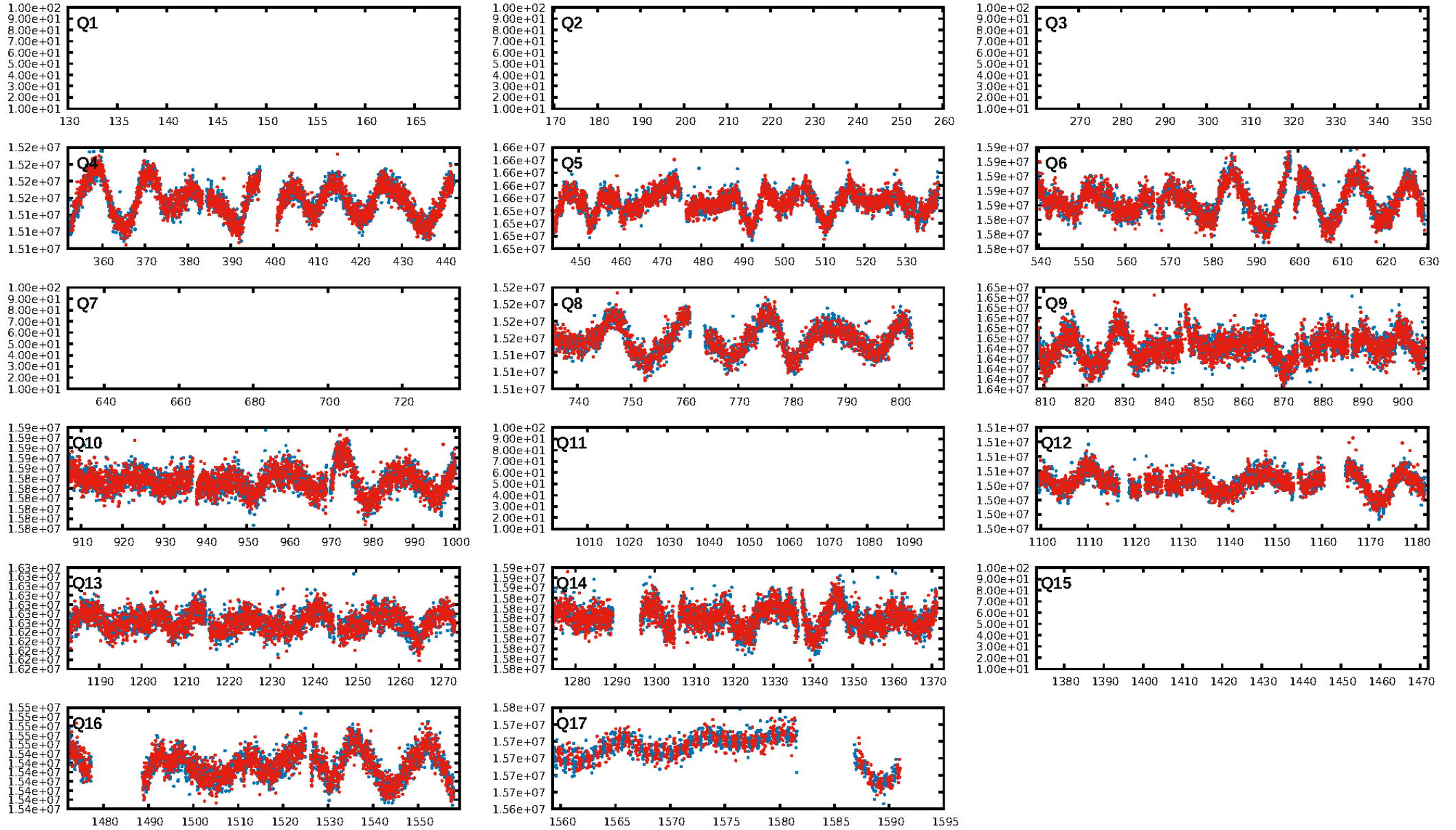
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [85.43 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.47e-11
RollingBand-fgt: 0.97 [920/953]
GhostDiagnostic-chr: 0.2696
Centroid-sig: N/A
Centroid-so: 1.839 arcsec [2.04 σ]
OotOffset-rm: 3.191 arcsec [3.12 σ]
KicOffset-rm: 3.313 arcsec [3.61 σ]
OotOffset-st: 3/0/4/4 [11]
KicOffset-st: 3/0/4/4 [11]
DiffImageQuality-fgm: 0.00 [0/11]
DiffImageOverlap-fno: 1.00 [11/11]

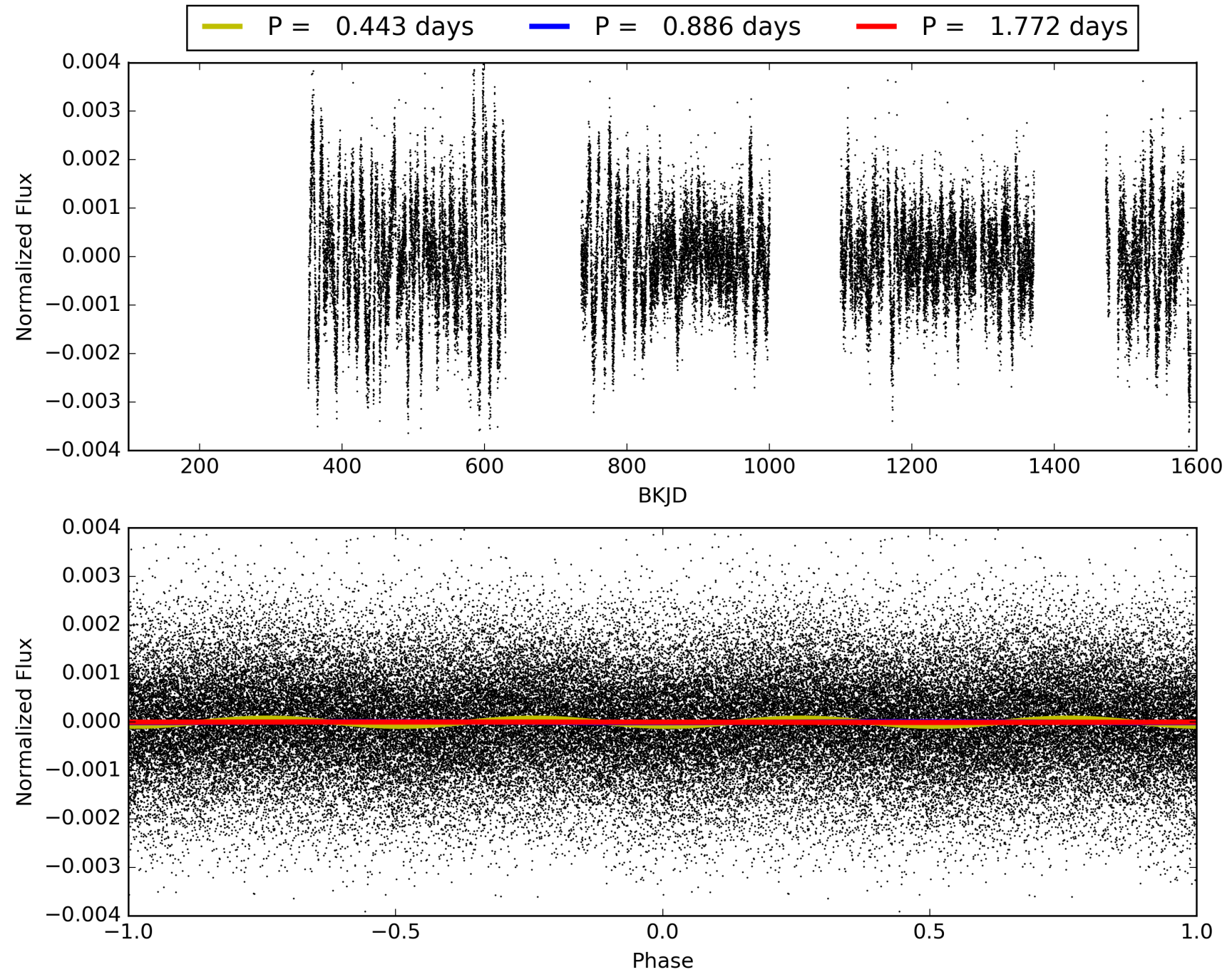
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010683367-01, PDC Light Curves

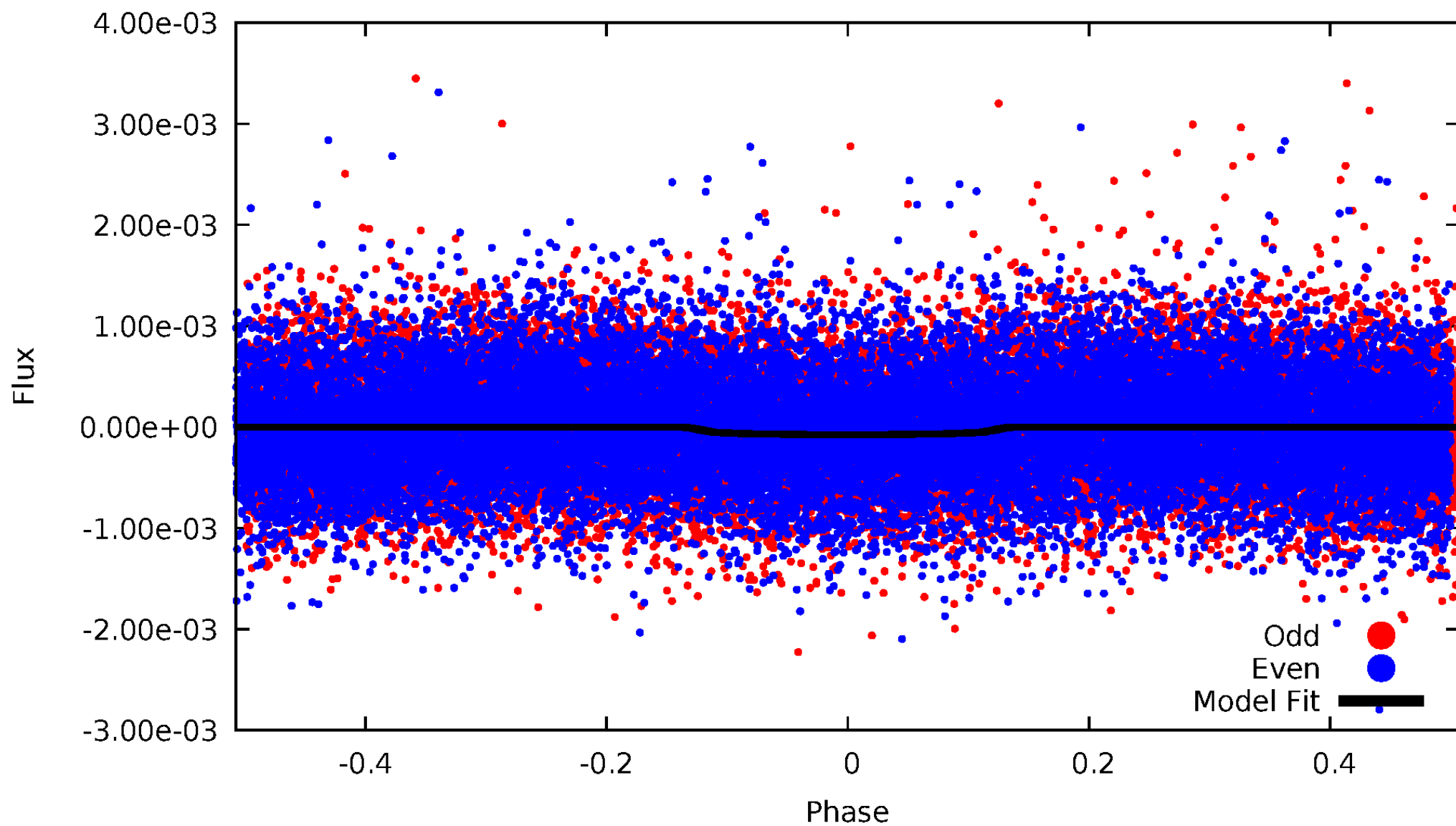


TCE 010683367-01



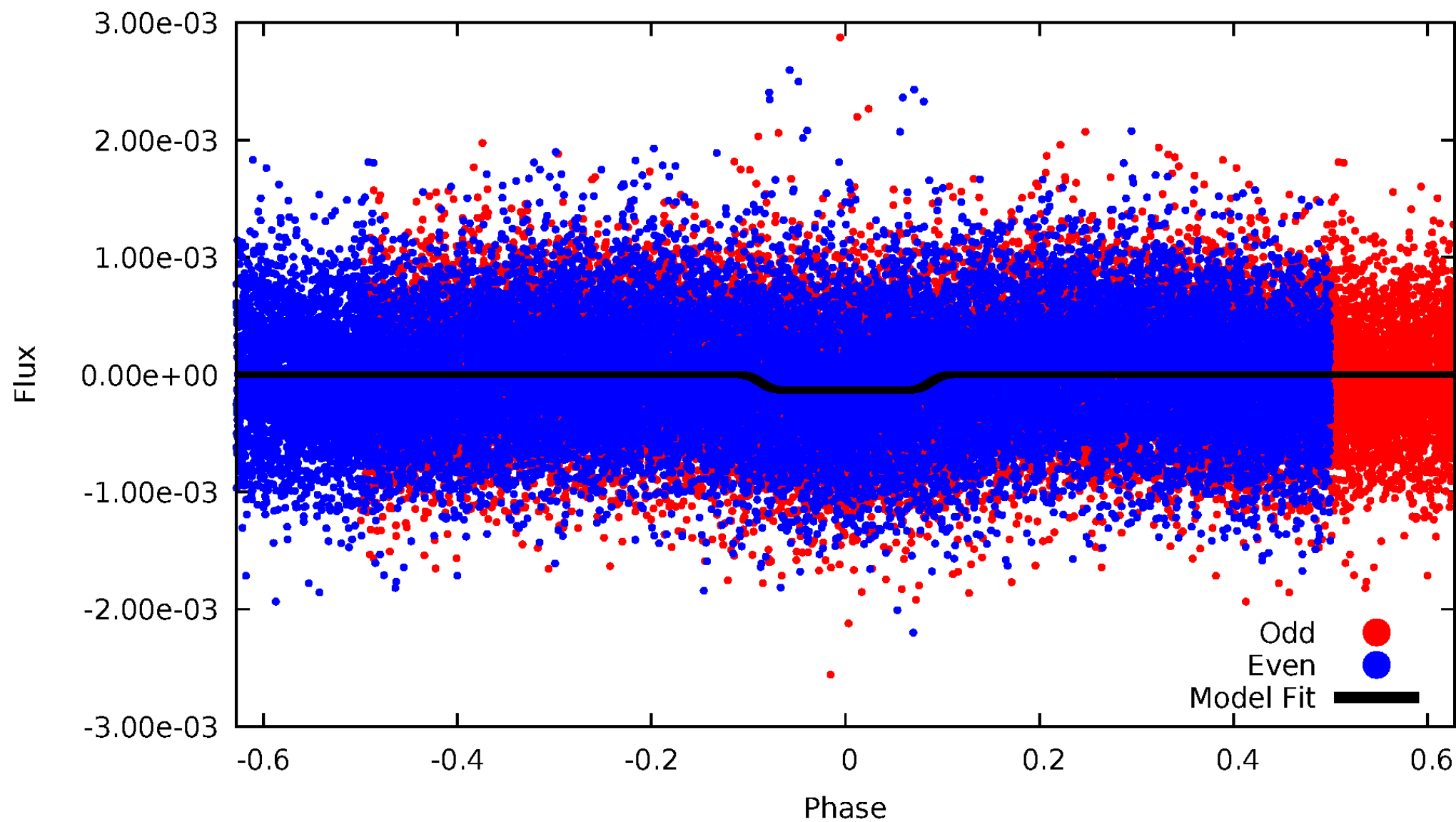
DV Odd/Even

TCE 010683367-01



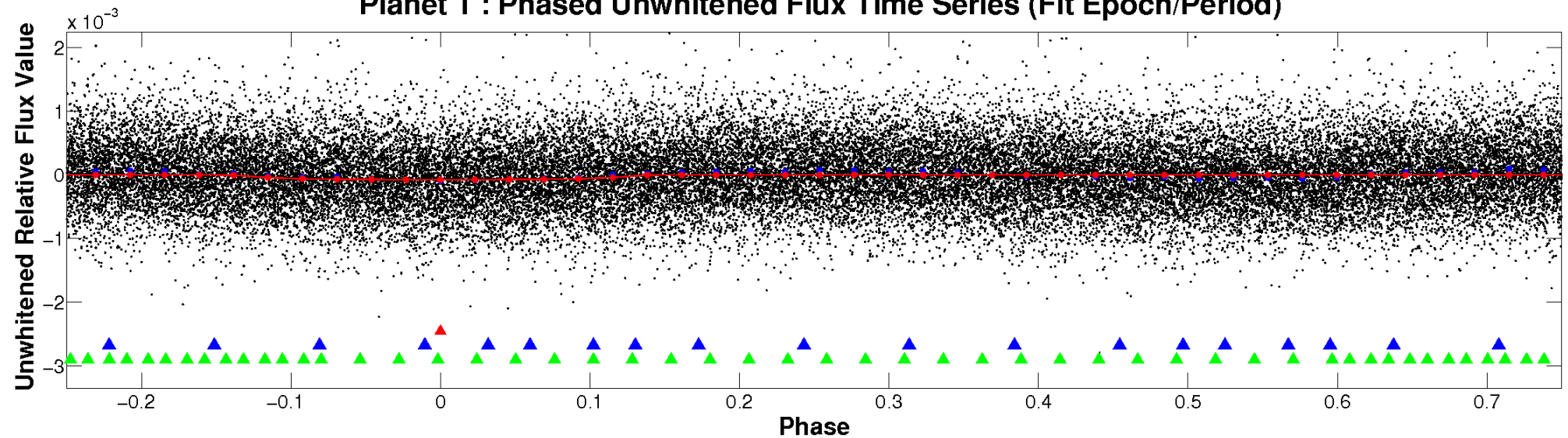
ALT Odd/Even

TCE 010683367-01

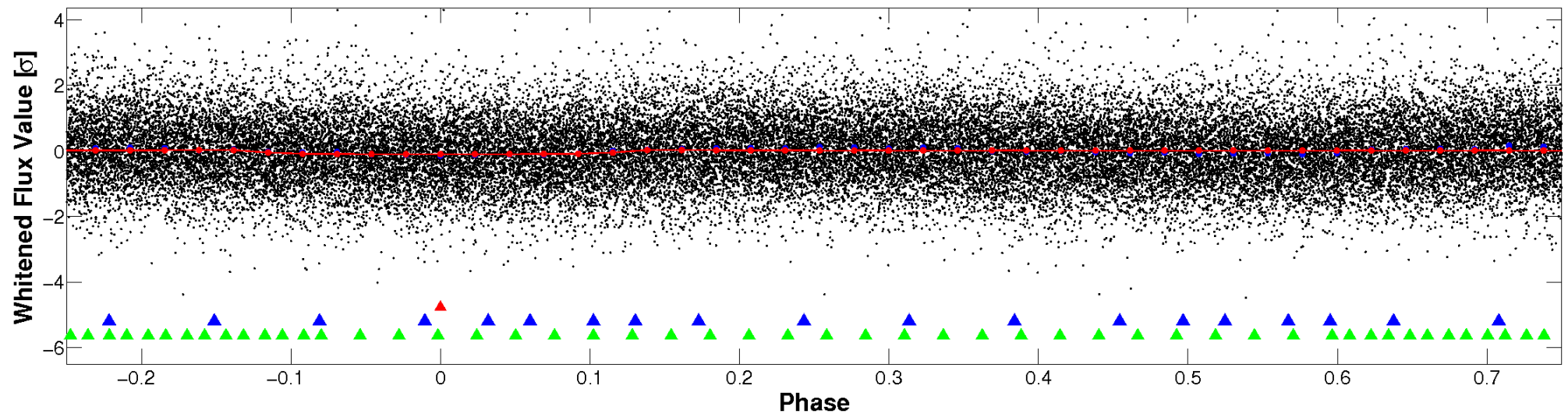


Non-Whitened Vs. Whitened Light Curve

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

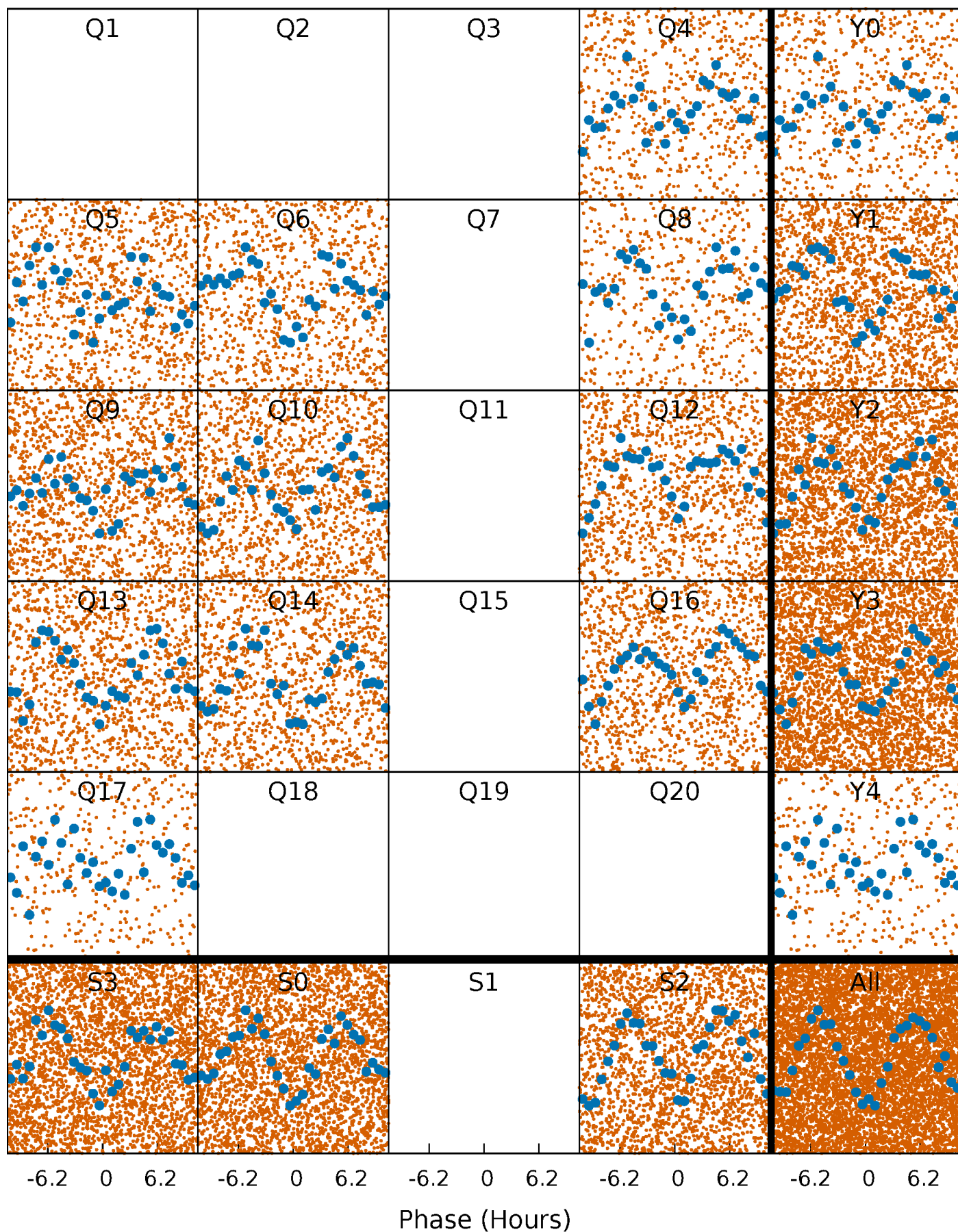


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



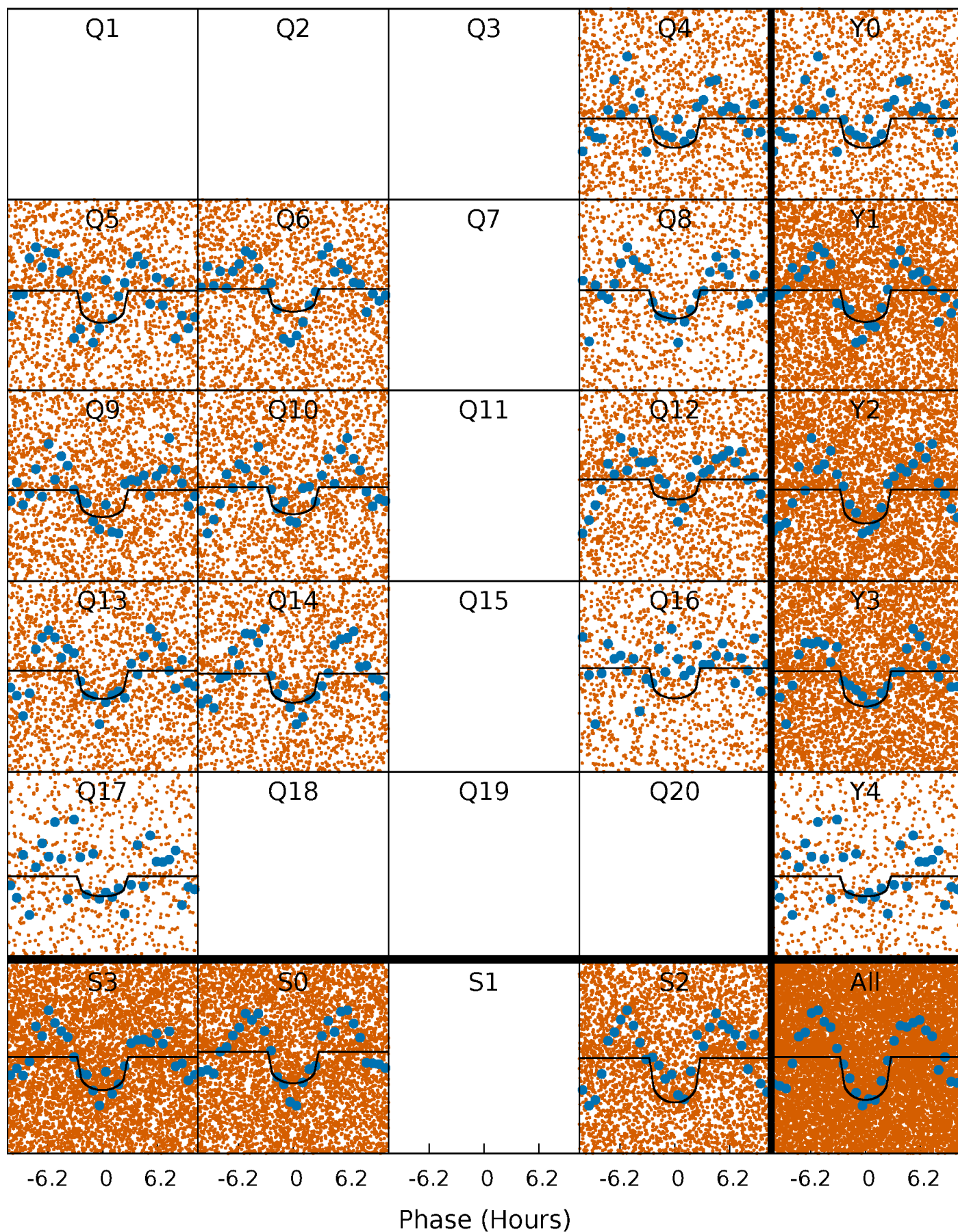
PDC Quarter-Phased Transit Curves

TCE 010683367-01 P= 0.886081 Days $T_0=132.427990$ (BKJD)



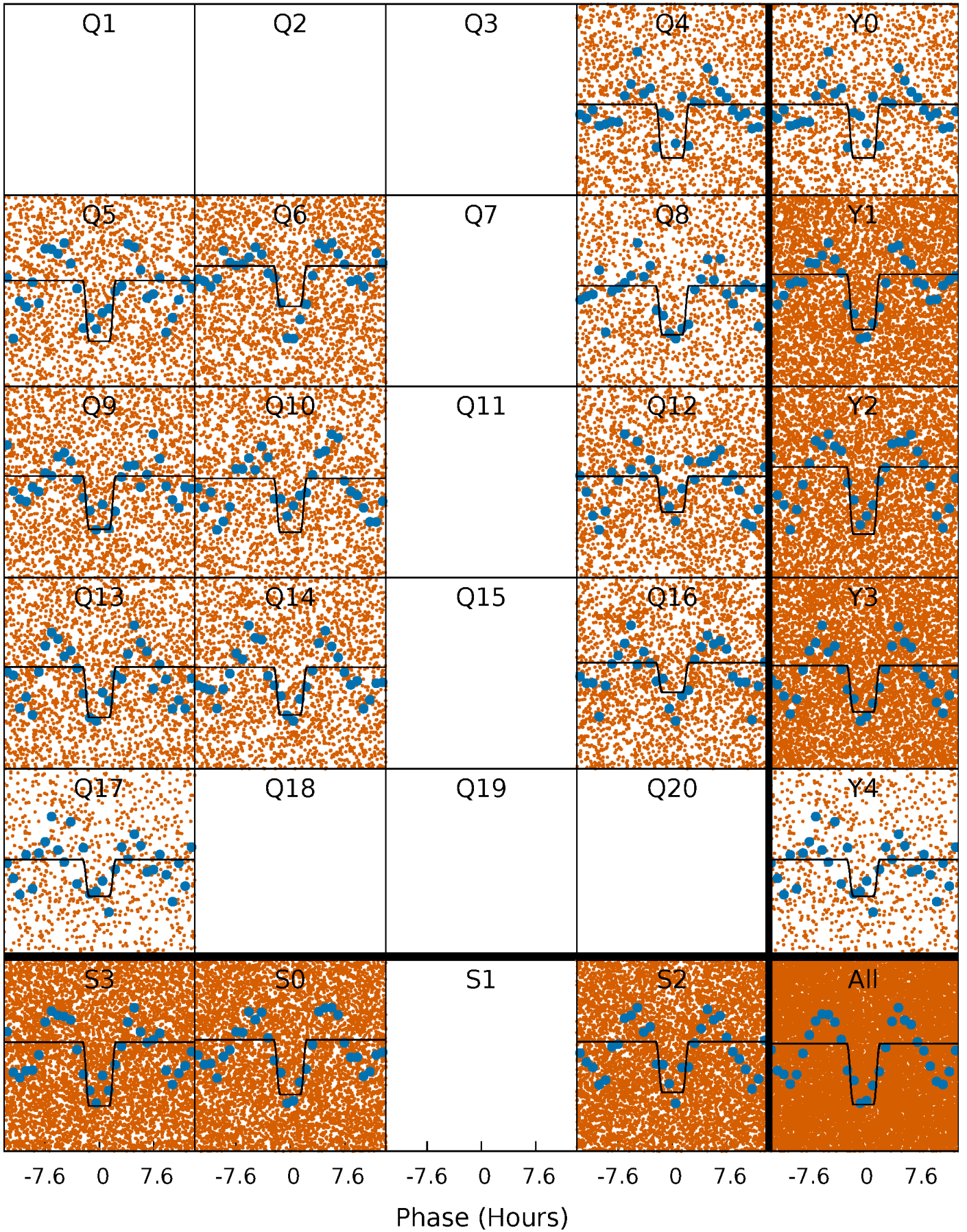
DV Quarter-Phased Transit Curves

TCE 010683367-01 P= 0.886081 Days $T_0=132.427990$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

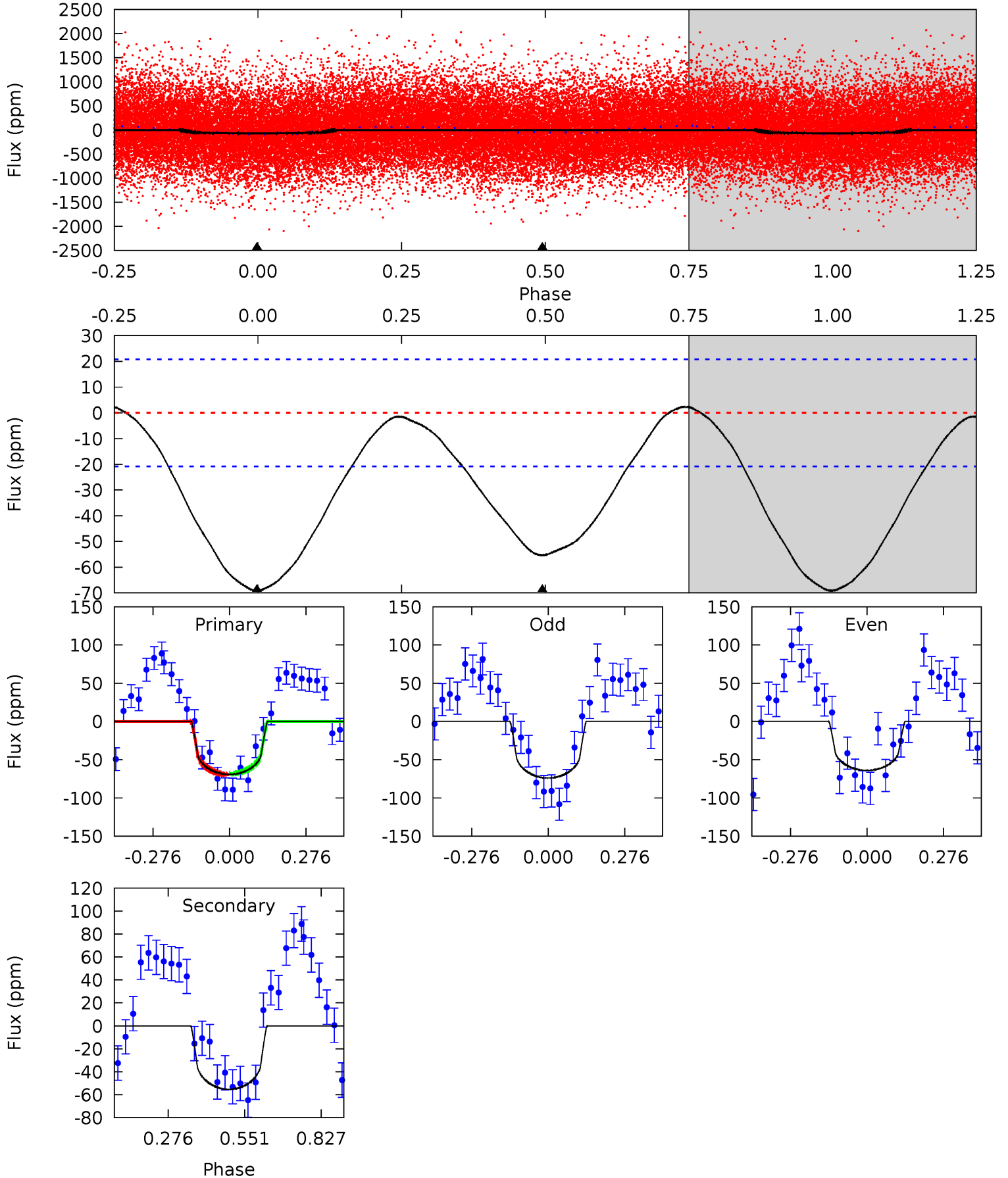
TCE 010683367-01 P= 0.886142 Days $T_0=132.375233$ (BKJD)



DV Model-Shift Uniqueness Test

010683367-01, P = 0.886081 Days, E = 132.427990 Days

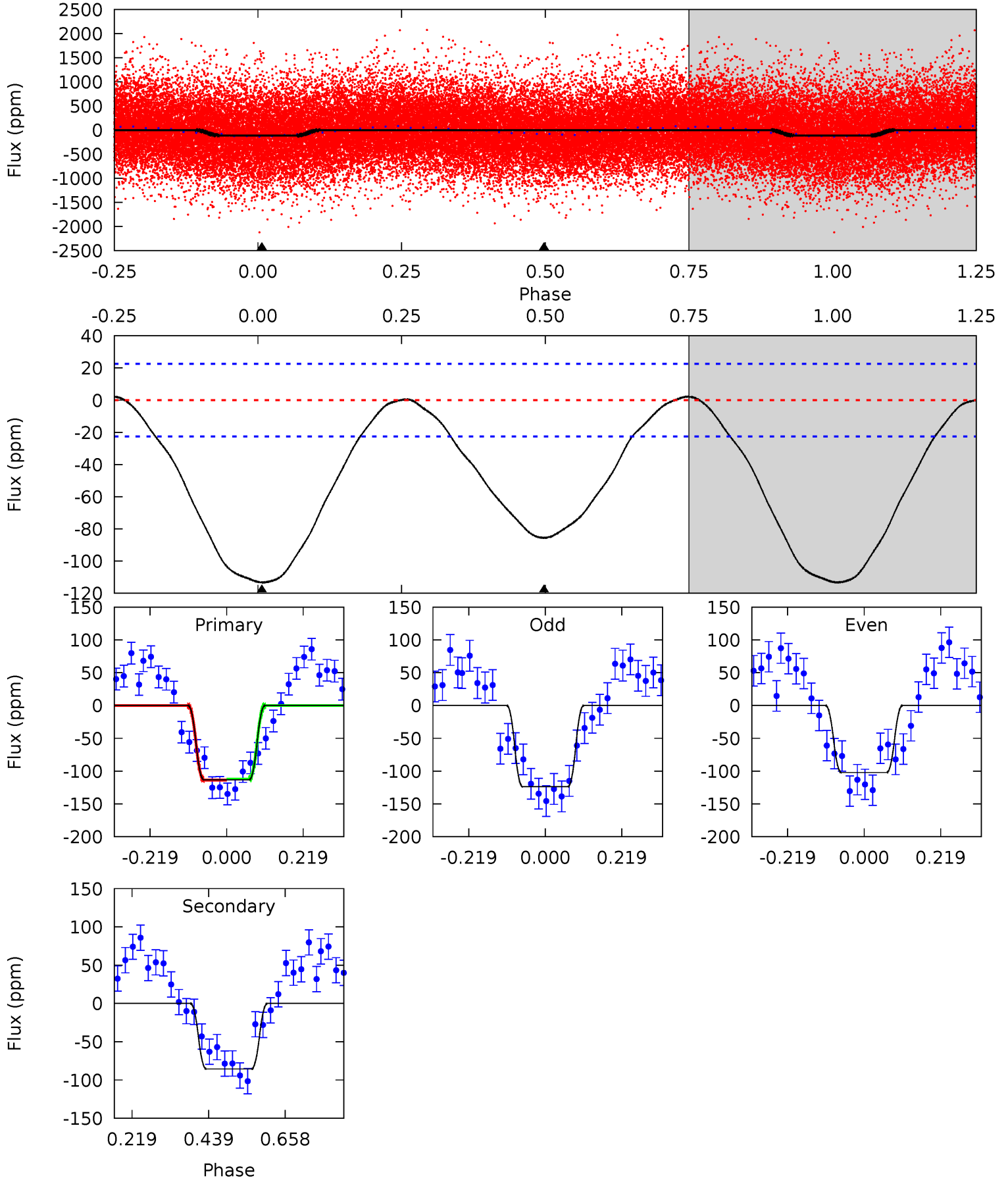
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	11.6	0	0	4.35	1.09	0.41	14.4	14.4	11.6	11.6	1.04	1.11	0.03	0.13



Alt Model-Shift Uniqueness Test

010683367-01, P = 0.886142 Days, E = 132.375233 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	16.7	0	0	4.40	1.23	0.33	22.1	22.1	16.7	16.7	2.09	0.98	0.02	0.15



Stellar Parameters For KIC 010683367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5769^{+172}_{-189}	$4.526^{+0.060}_{-0.180}$	$-0.280^{+0.300}_{-0.300}$	$0.854^{+0.232}_{-0.100}$	$0.893^{+0.110}_{-0.100}$	$2.018^{+0.510}_{-0.994}$
	+3%/-3%	+1%/-4%	+107%/-107%	+27%/-12%	+12%/-11%	+25%/-49%
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 010683367-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 5	$0.89^{+0.74}_{-0.56}$	2529^{+175}_{-119}	5161^{+3793}_{-1092}	11^{+74}_{-8}
Alt.	-86 ± 5	$1.17^{+0.76}_{-0.68}$	2536^{+181}_{-124}	5077^{+2947}_{-924}	10^{+48}_{-7}

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 $A_{obs} \gg 1.0$

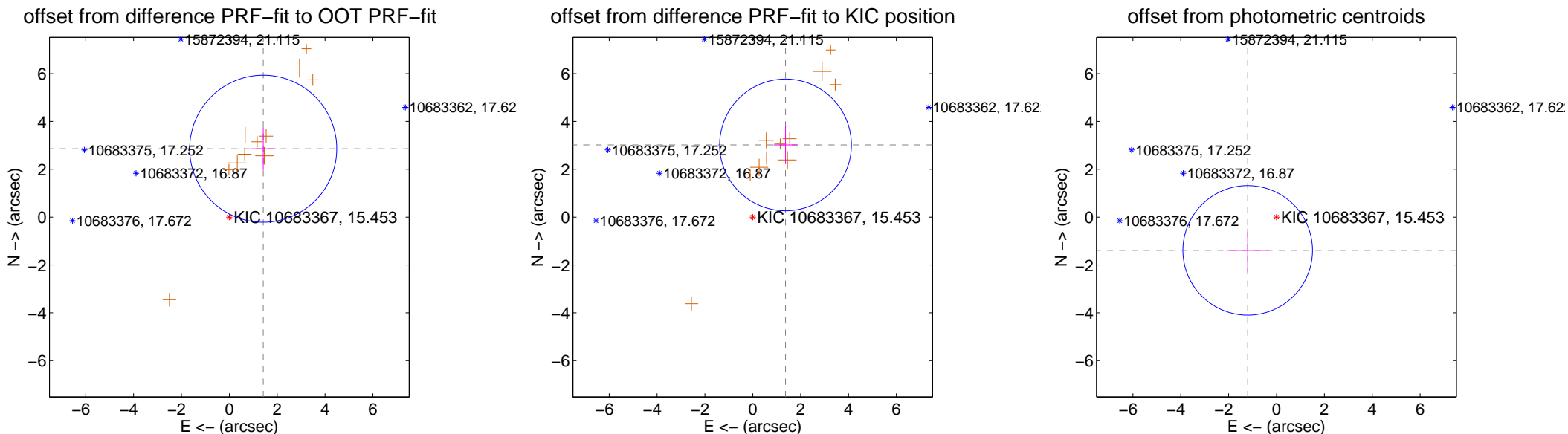
DV Centroid Data

Supplemental centroid analysis for 010683367-01. Kepler magnitude: 15.45. Transit SNR 9.35

There are 0 quarters with good PRF difference image offsets

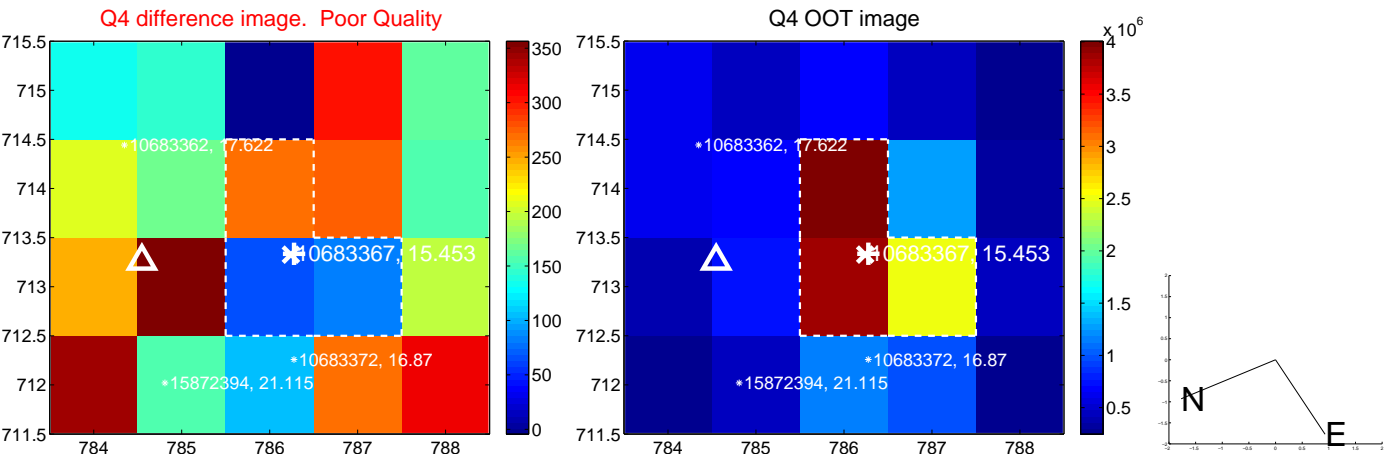
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.191 ± 1.024	3.12	-1.416 ± 0.526	2.860 ± 0.890
PRF-fit source offset from KIC position	3.313 ± 0.918	3.61	-1.367 ± 0.495	3.018 ± 0.792
photometric centroid source offset	1.84 ± 0.90	2.04	1.20 ± 0.89	-1.39 ± 0.91

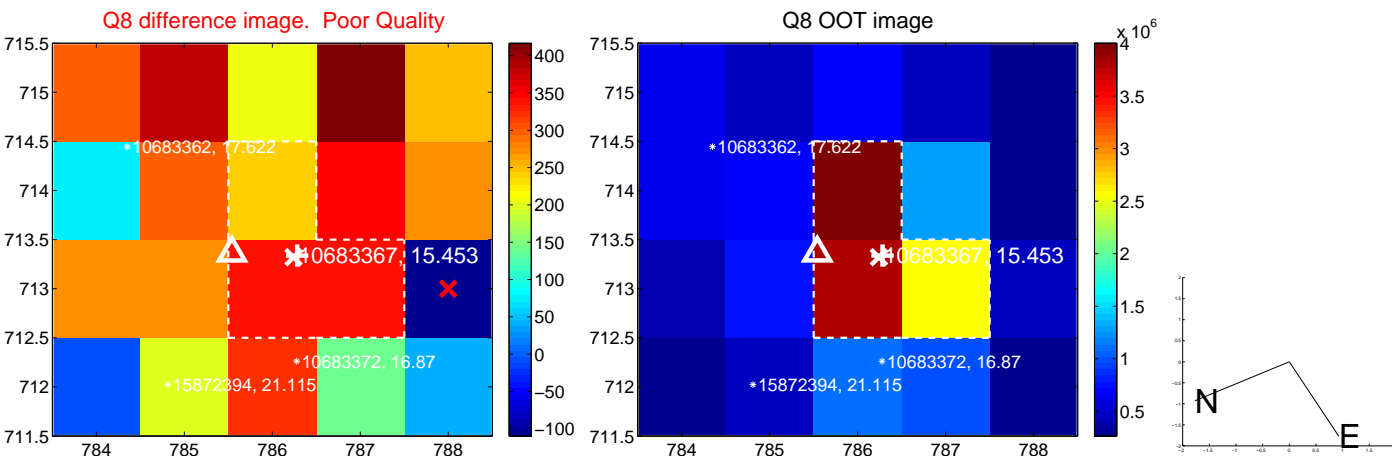
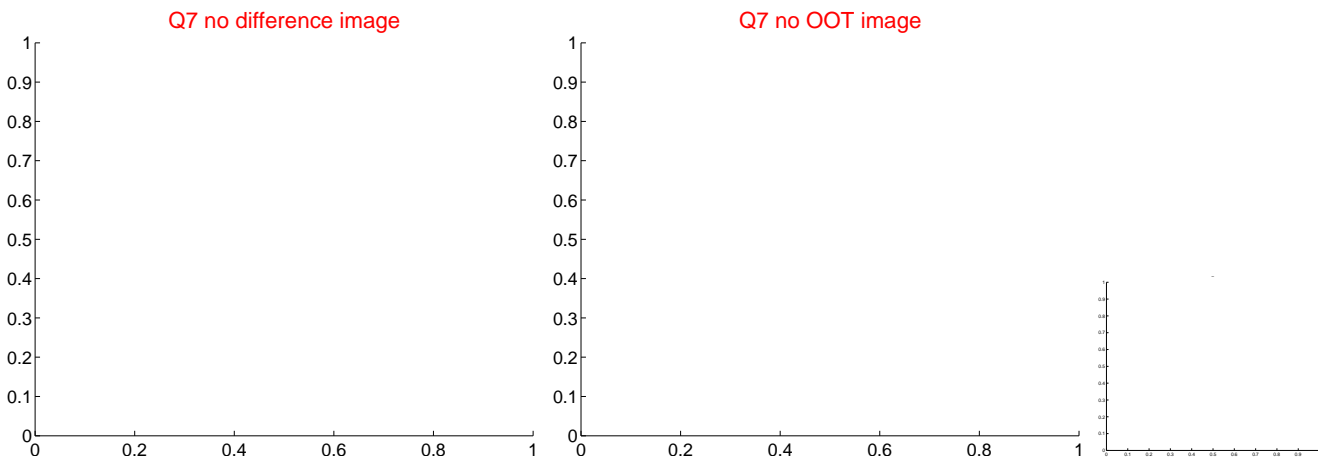
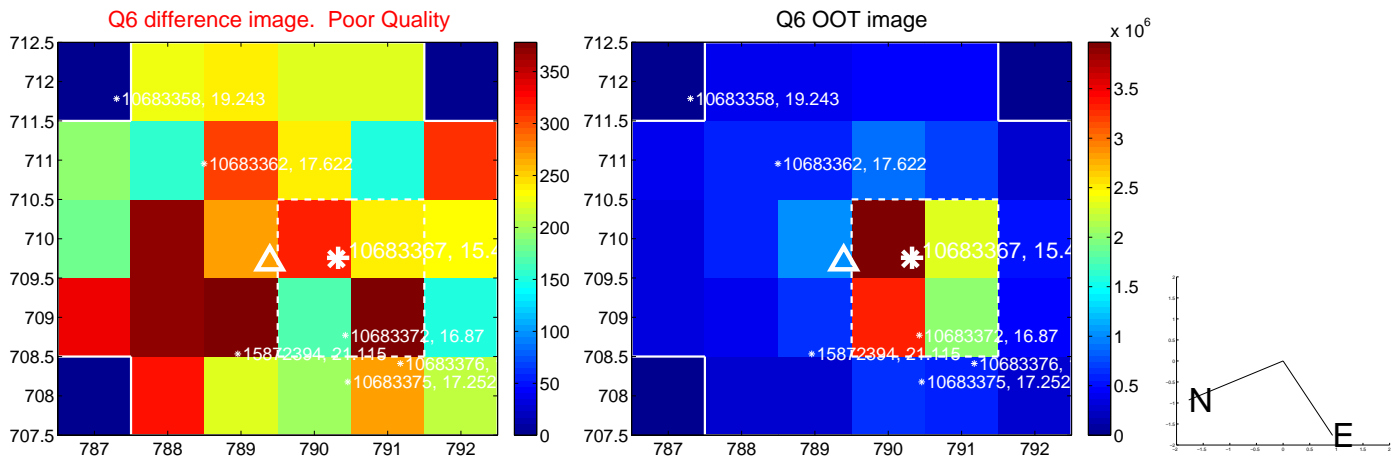
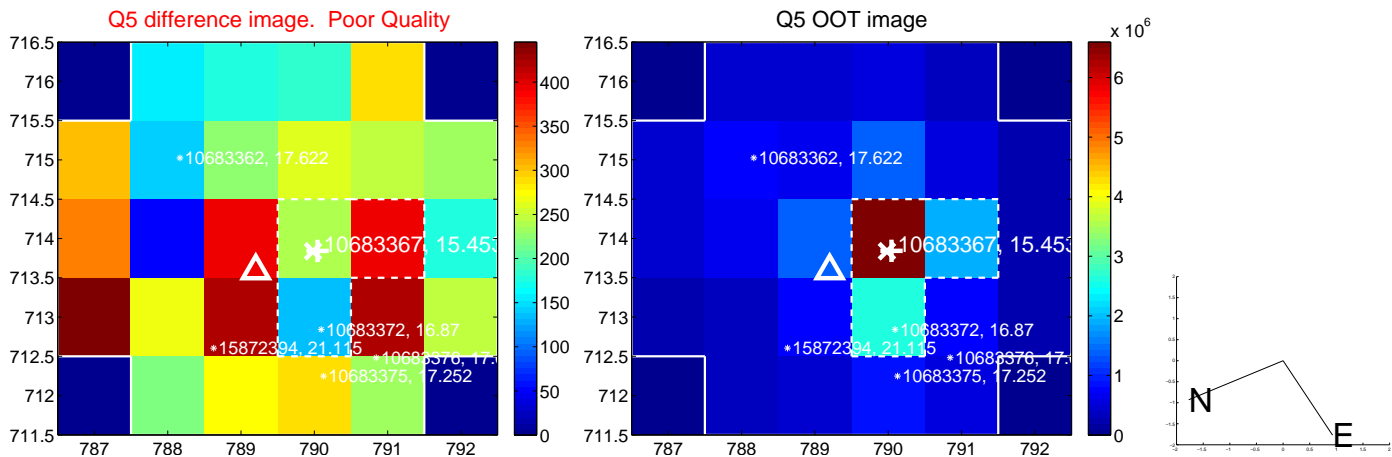


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

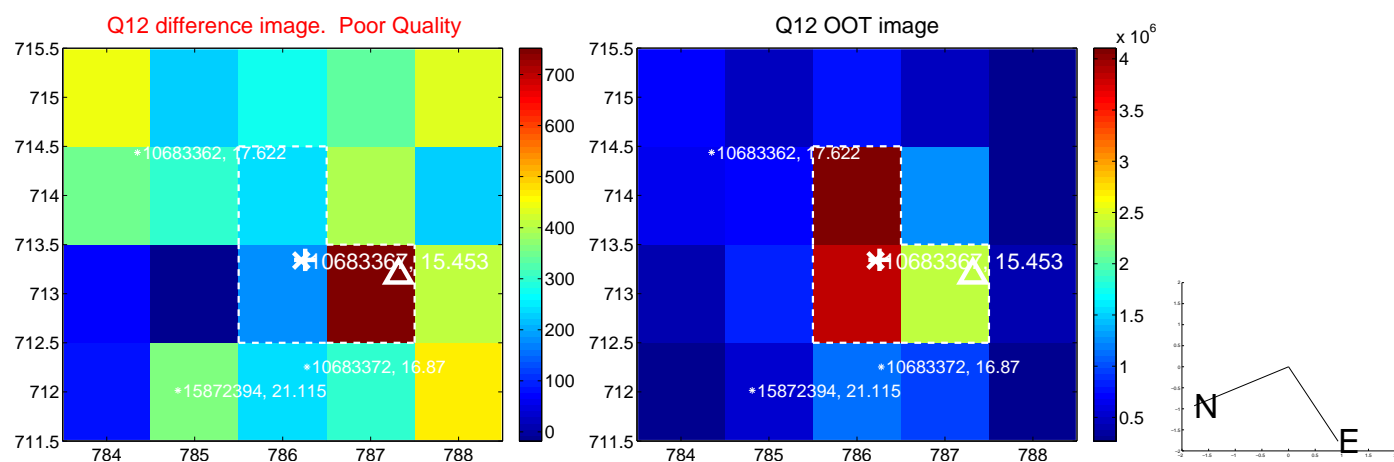
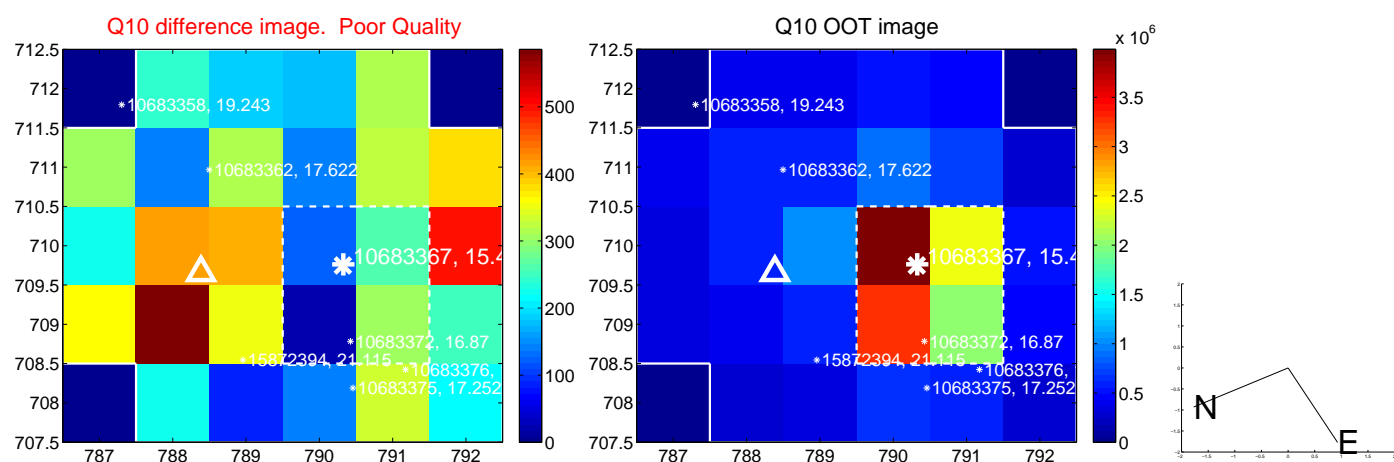
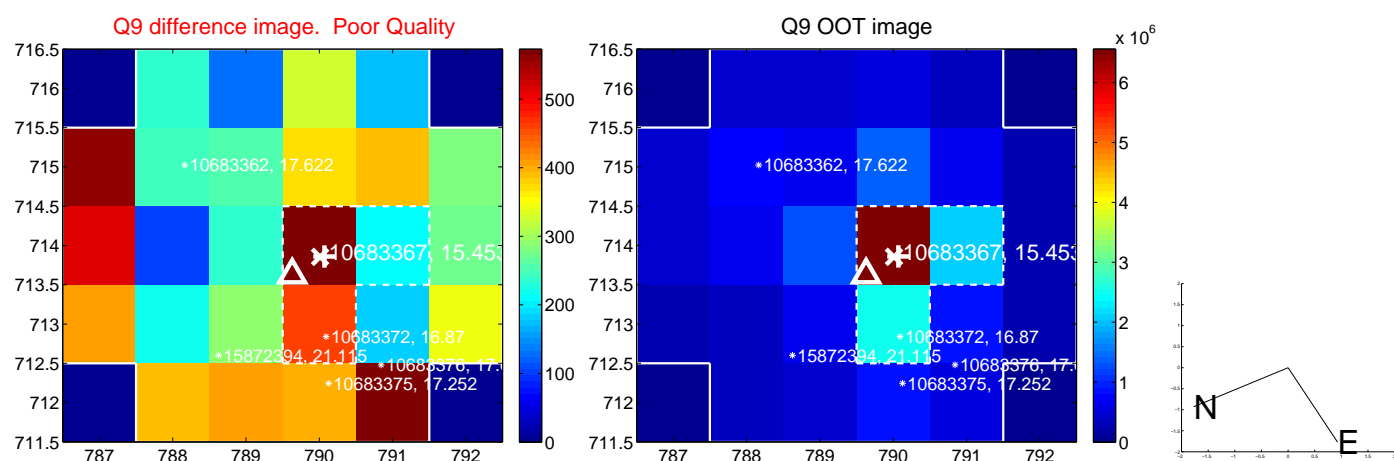
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



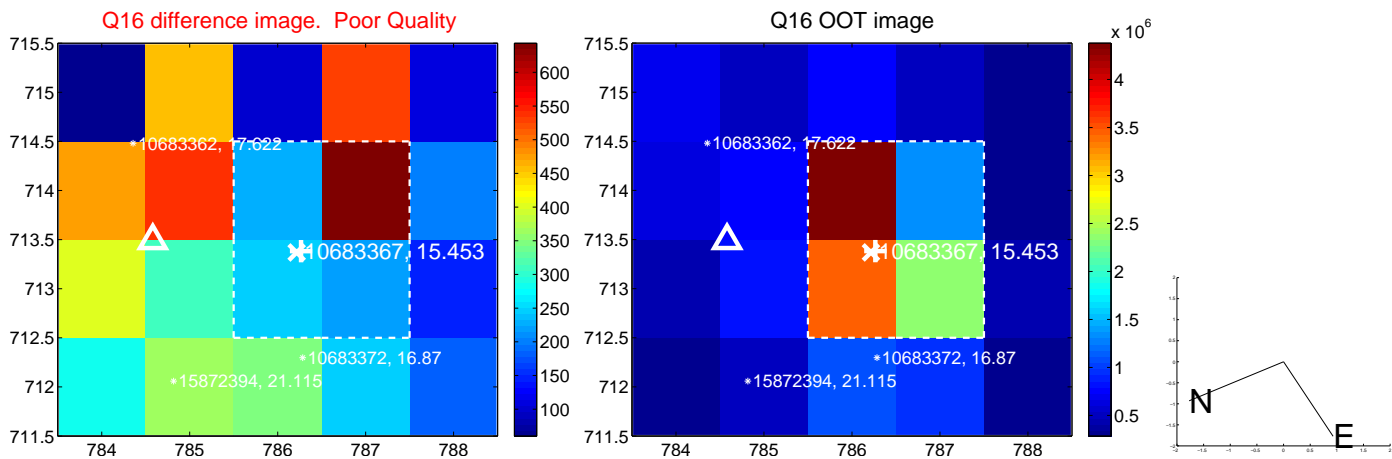
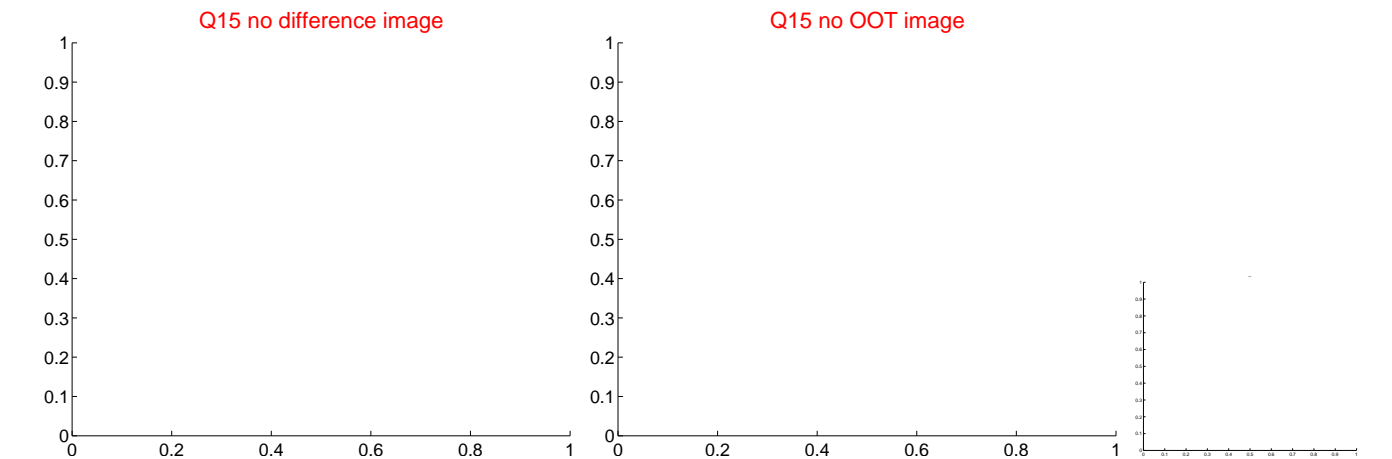
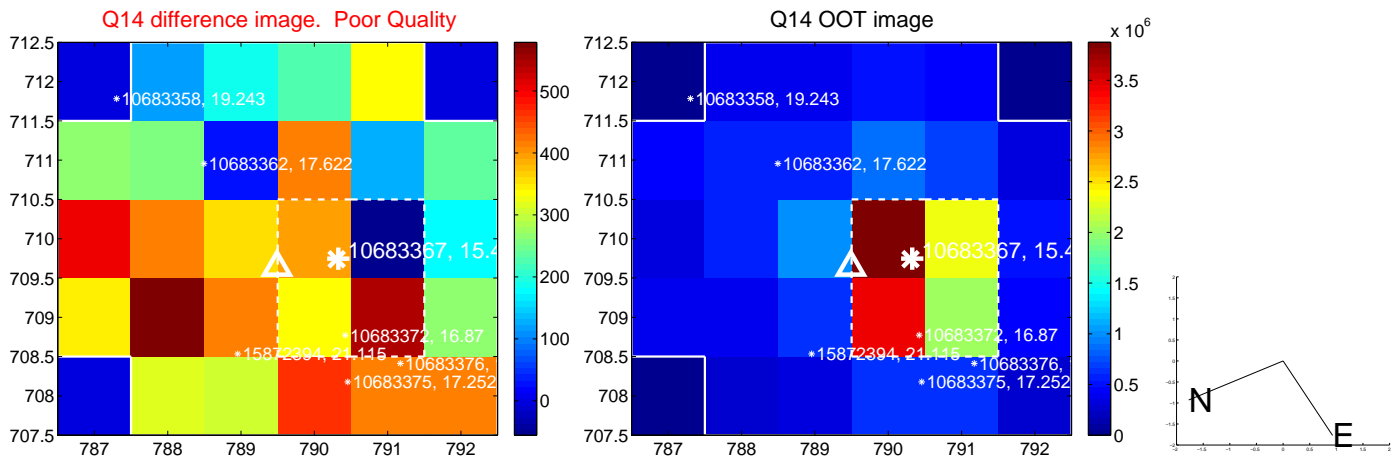
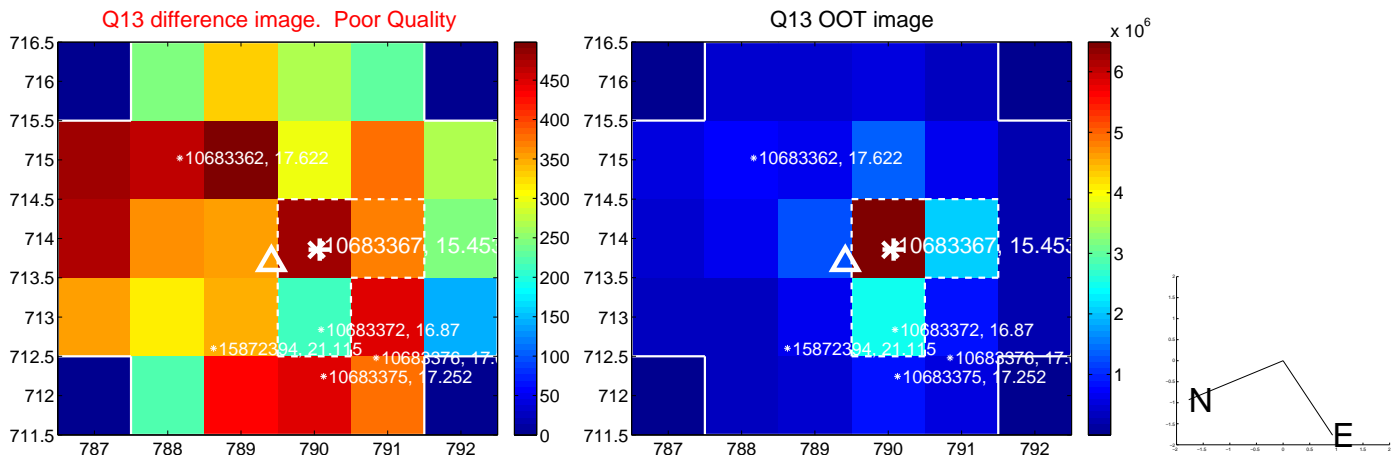
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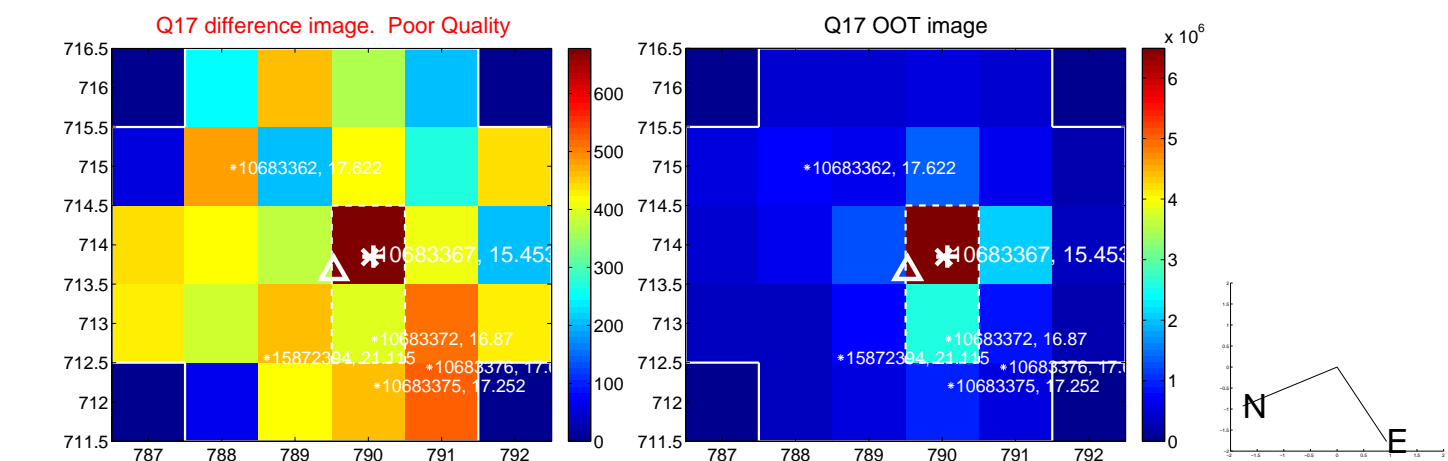
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



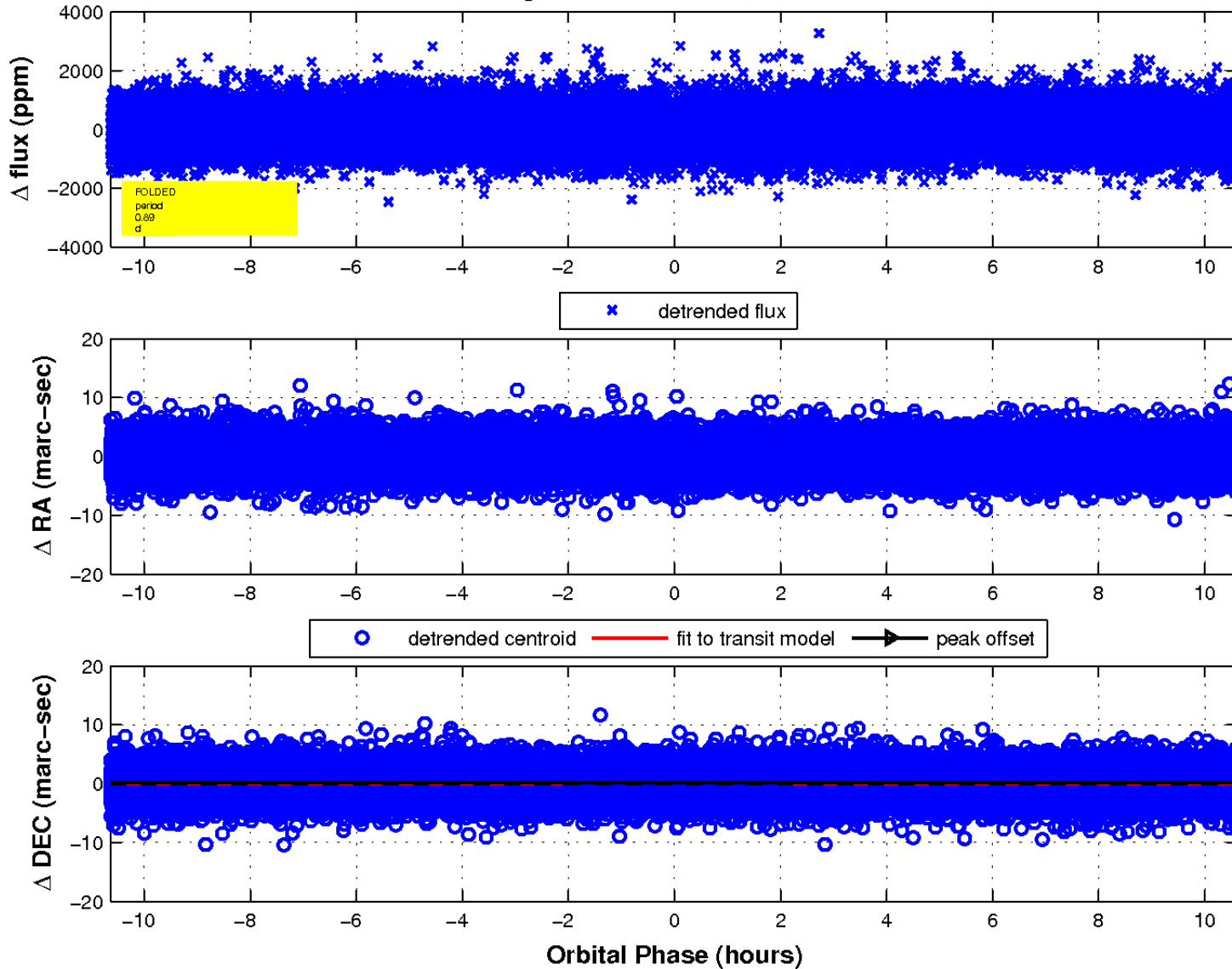
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

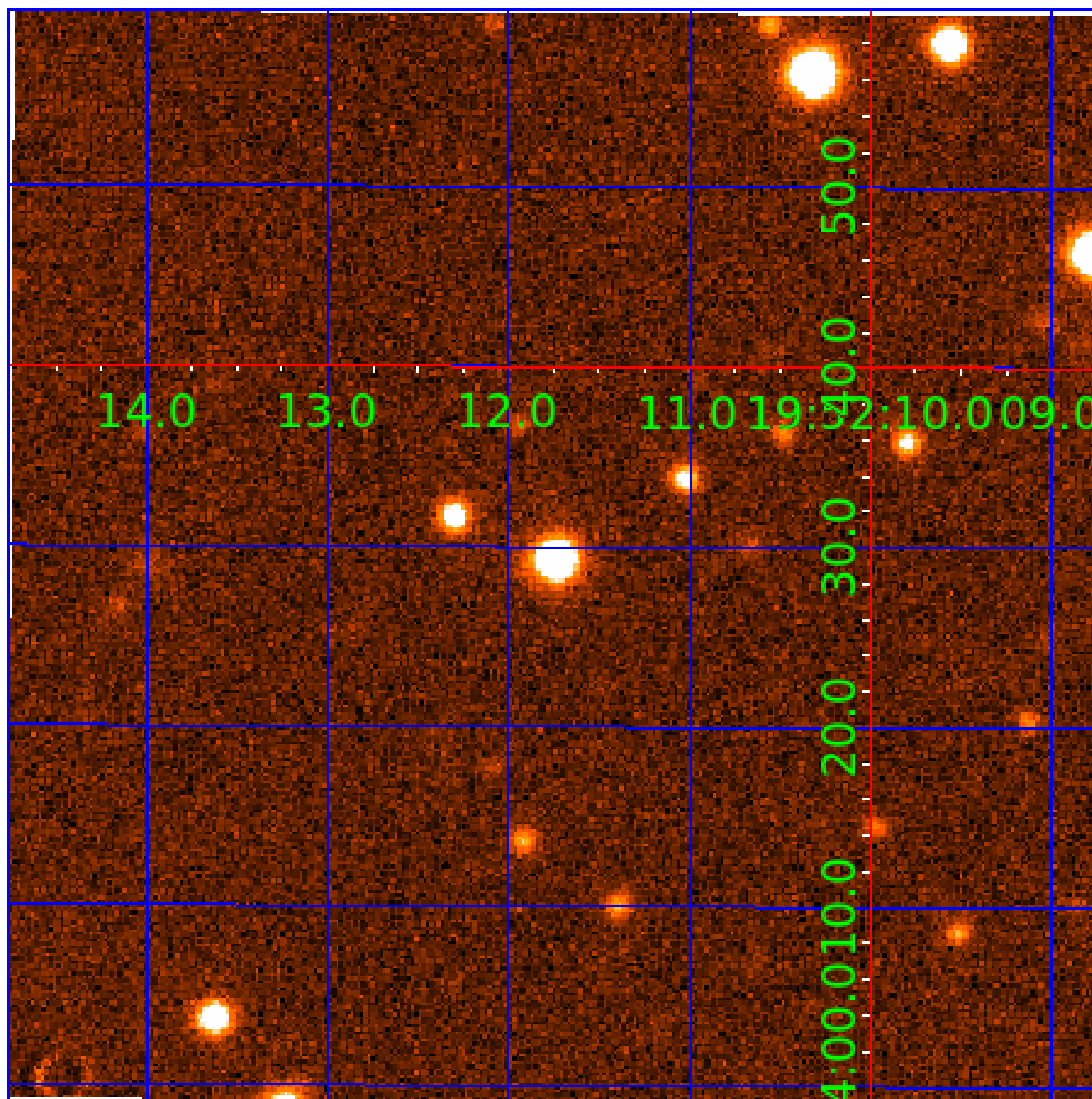


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 010683367

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})
010683367-01	OBS	No	0.886081	132.427990	76.1	5.394	8.1	9.3	0.85	5769	0.77	2393.16
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010683367-03	OBS	No	28.377623	151.574576	521.5	5.527	7.8	7.0	0.85	5769	2.12	23.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010683367-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
010683367-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010683367-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

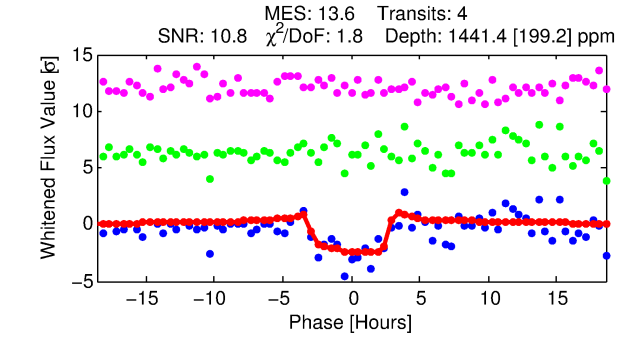
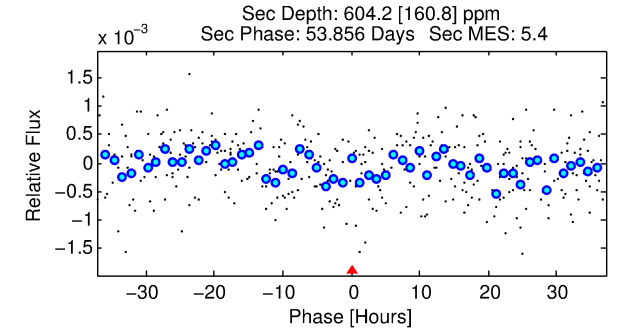
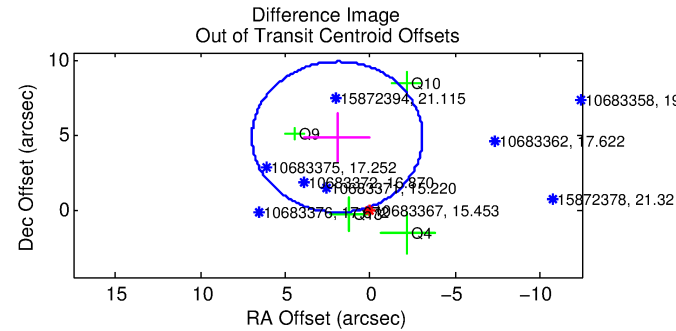
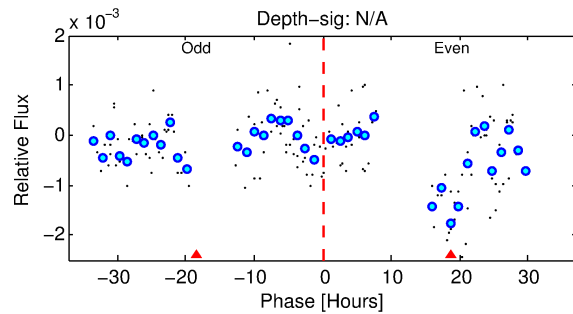
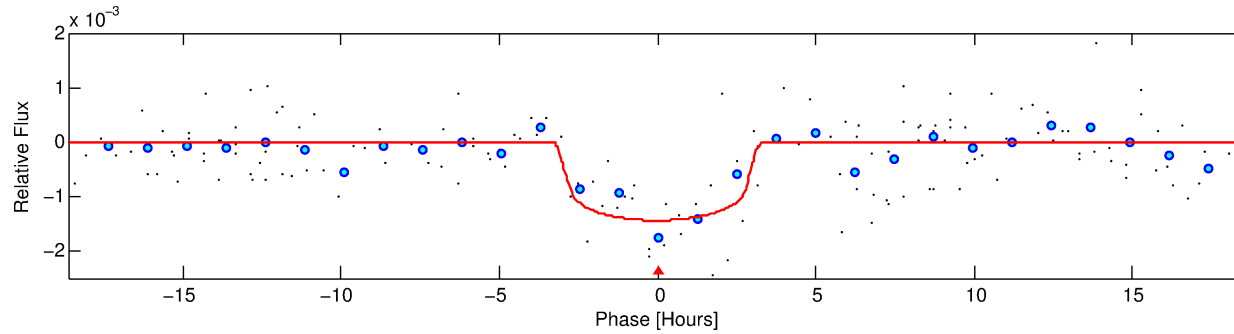
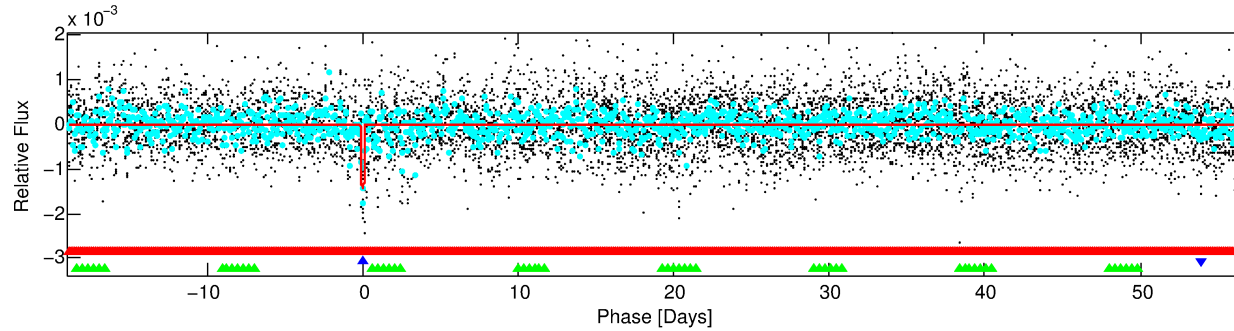
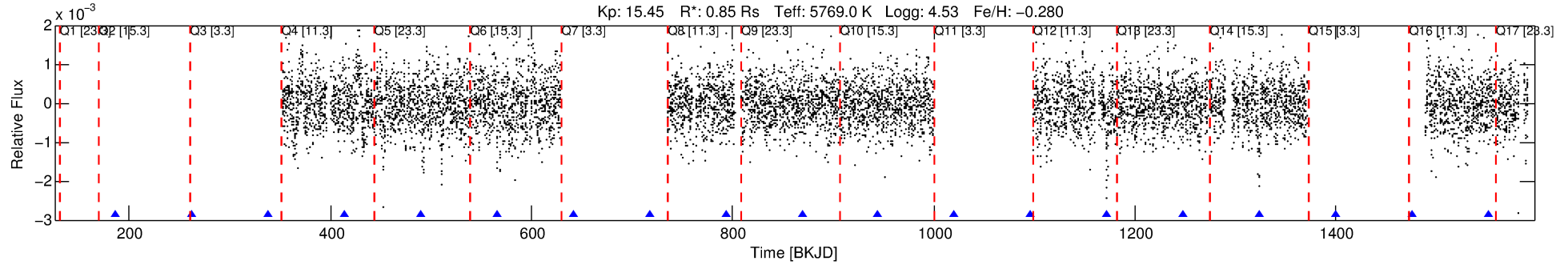
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010683367-02

No Significant Match Found

DV One-Page Summary

KIC: 10683367 Candidate: 2 of 3 Period: 75.791 d



DV Fit Results:

Period = 75.79108 [0.00218] d
Epoch = 186.9191 [0.0203] BKJD
Rp/R* = 0.0349 [0.0549]
a/R* = 92.94 [665.25]
b = 0.28 [23.34]
Seff = 6.35 [2.26]
Teq = 405 [36] K
Rp = 3.25 [5.19] Re
a = 0.3376 [0.0769] AU
Ag = 3591.69 [11408.84] [0.31σ]
Teffp = 4845 [3830] K [1.16σ]

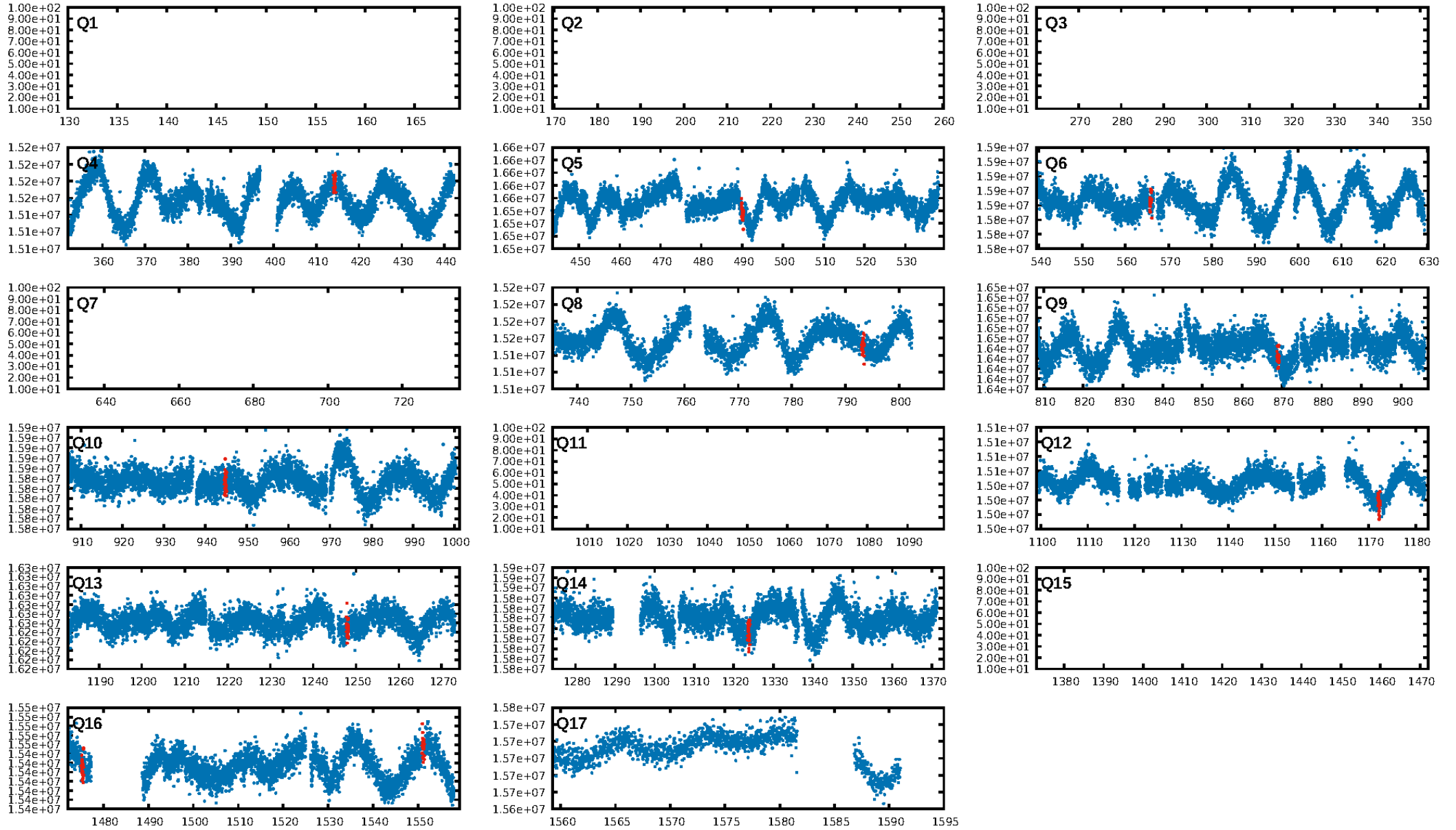
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [136.98σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 5.71e-20
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 8.181
Centroid-sig: N/A
Centroid-so: 0.682 arcsec [1.40σ]
OotOffset-rm: 5.214 arcsec [3.11σ]
KicOffset-rm: 5.063 arcsec [2.41σ]
OotOffset-st: 1/0/1/2 [4]
KicOffset-st: 1/0/1/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/9]

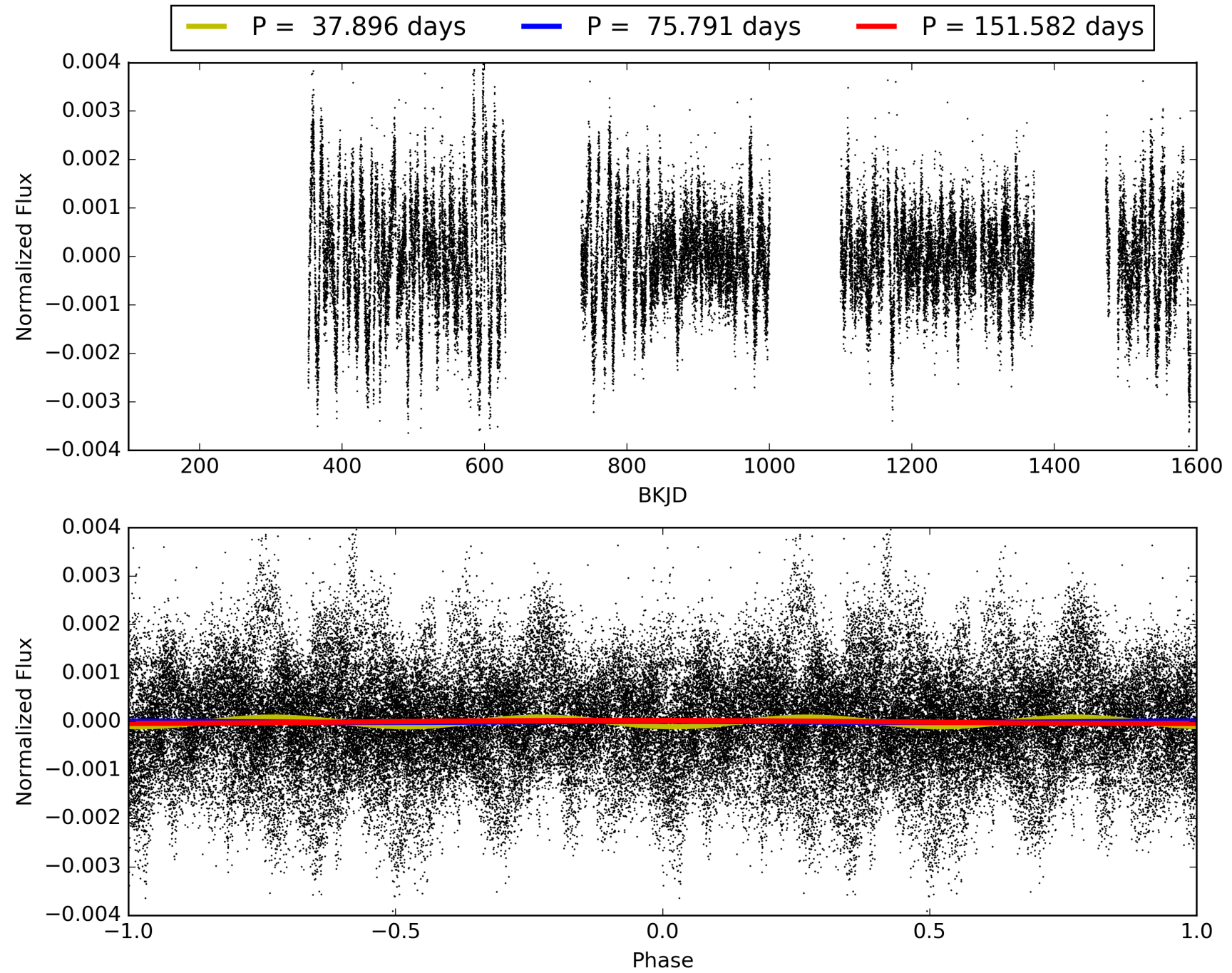
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:01:08 Z

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

TCE 010683367-02, PDC Light Curves

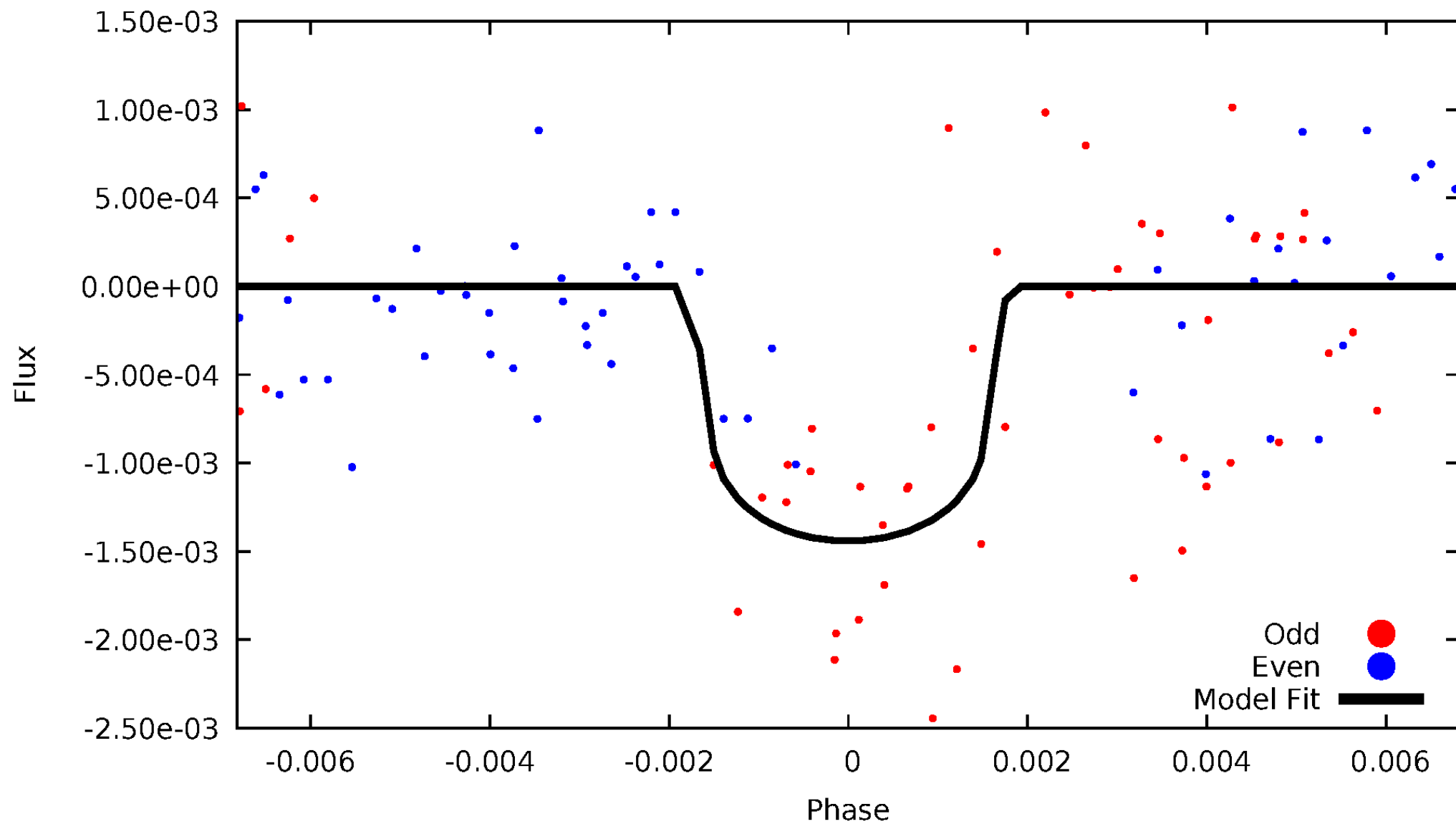


TCE 010683367-02



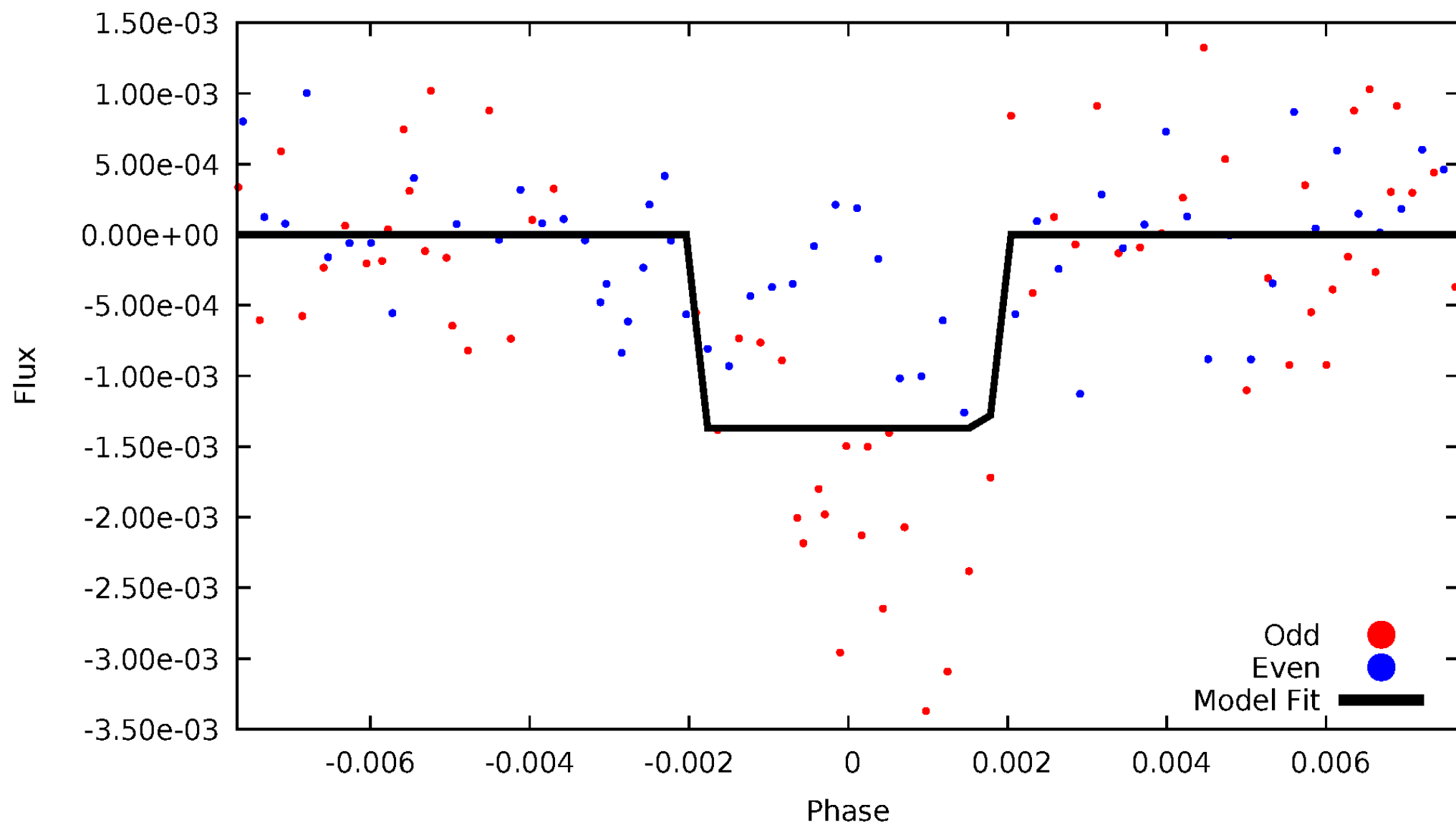
DV Odd/Even

TCE 010683367-02



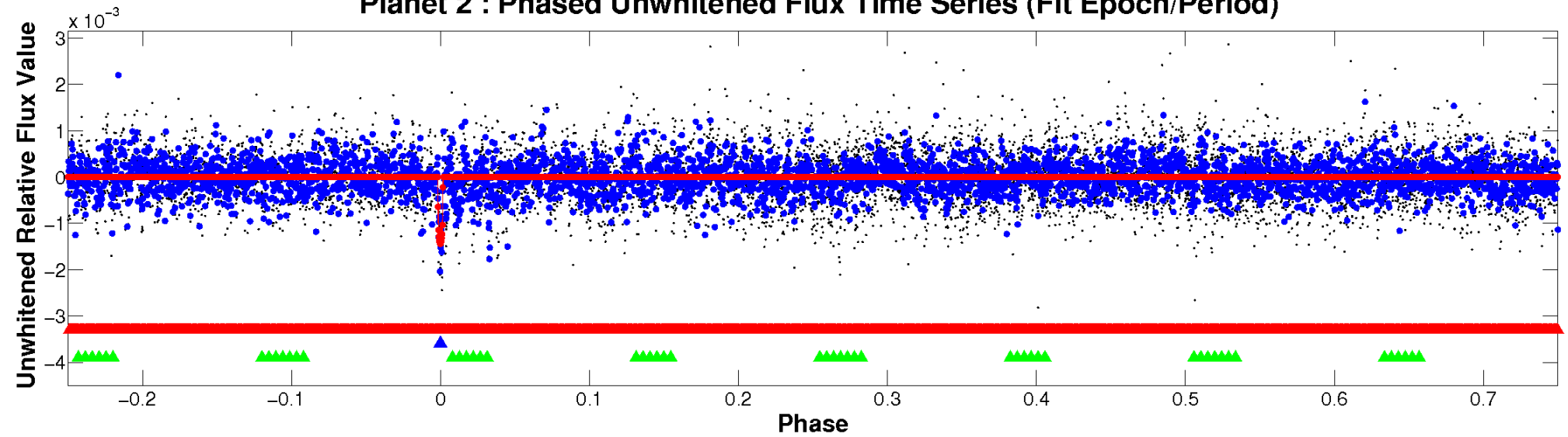
ALT Odd/Even

TCE 010683367-02

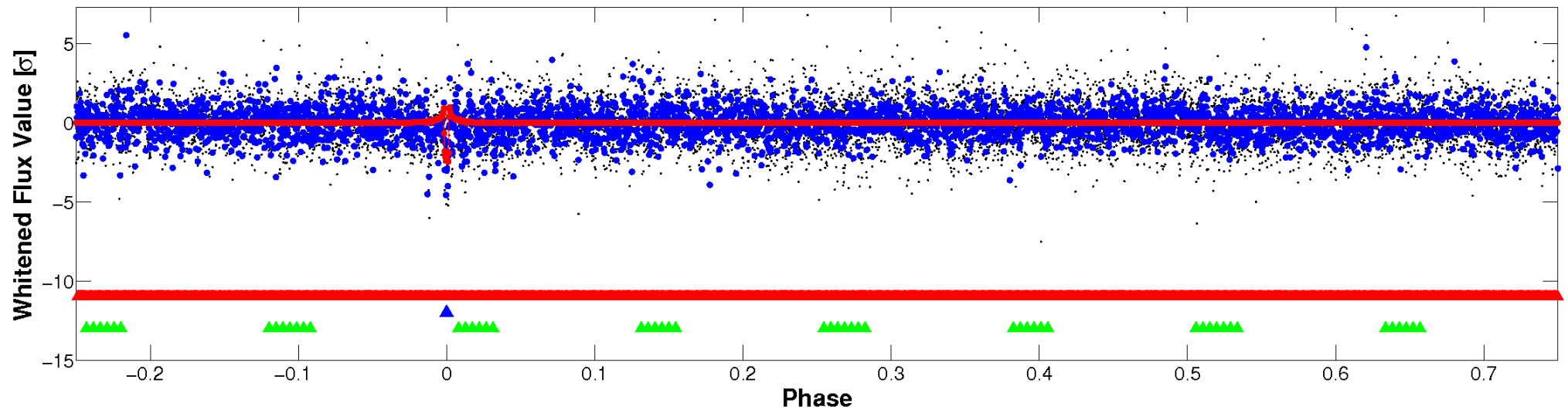


Non-Whitened Vs. Whitened Light Curve

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

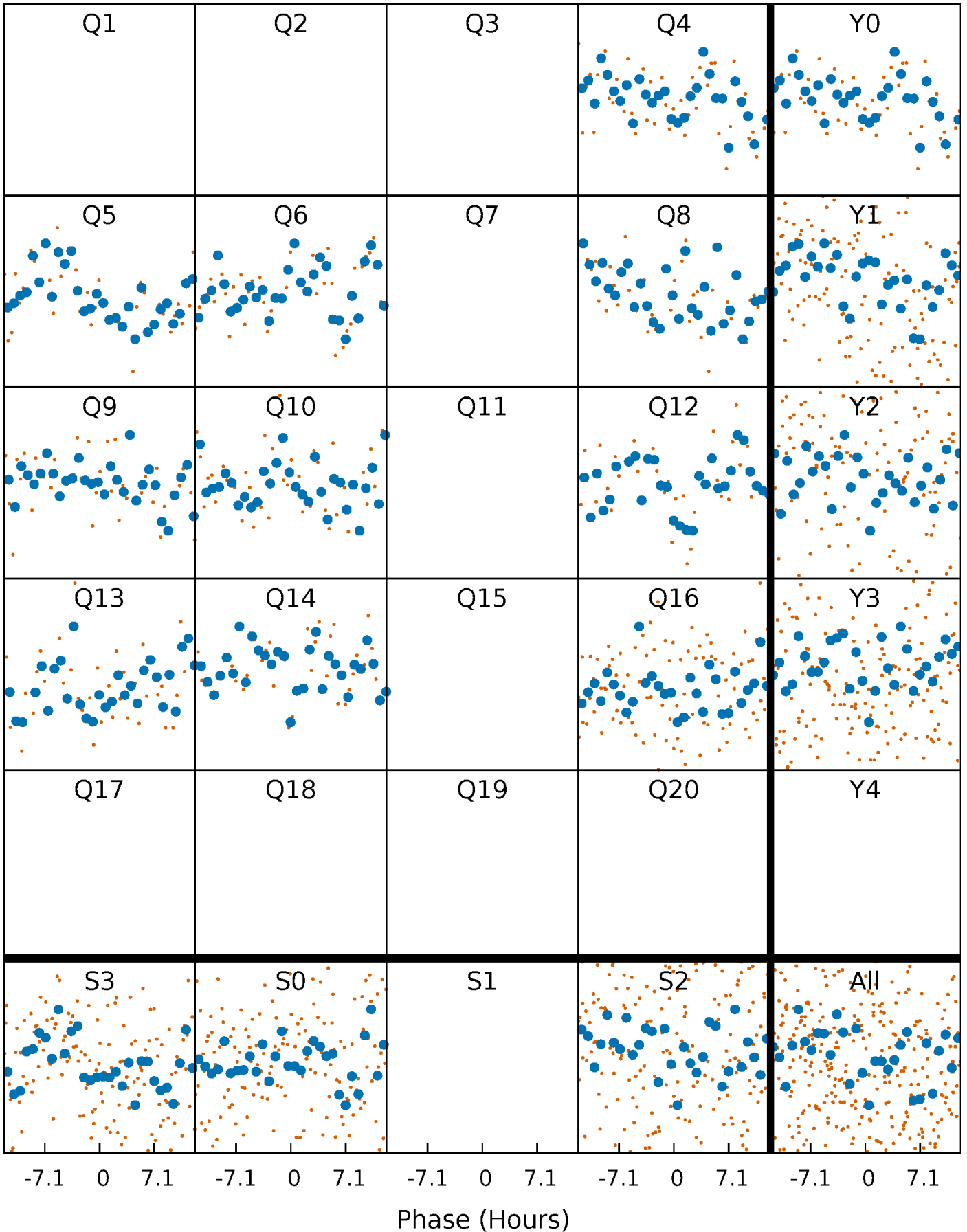


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



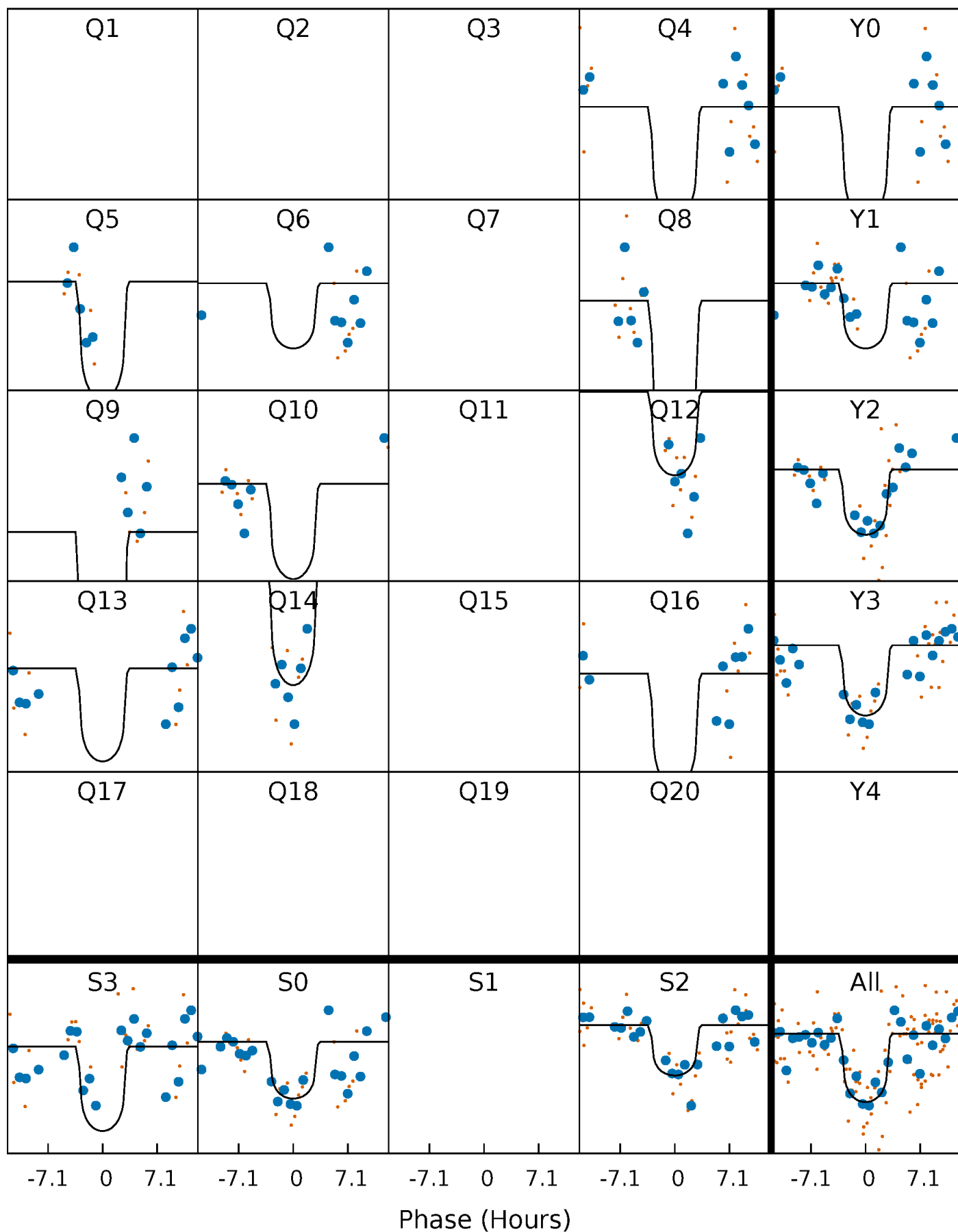
PDC Quarter-Phased Transit Curves

TCE 010683367-02 P= 75.791077 Days $T_0=186.919068$ (BKJD)



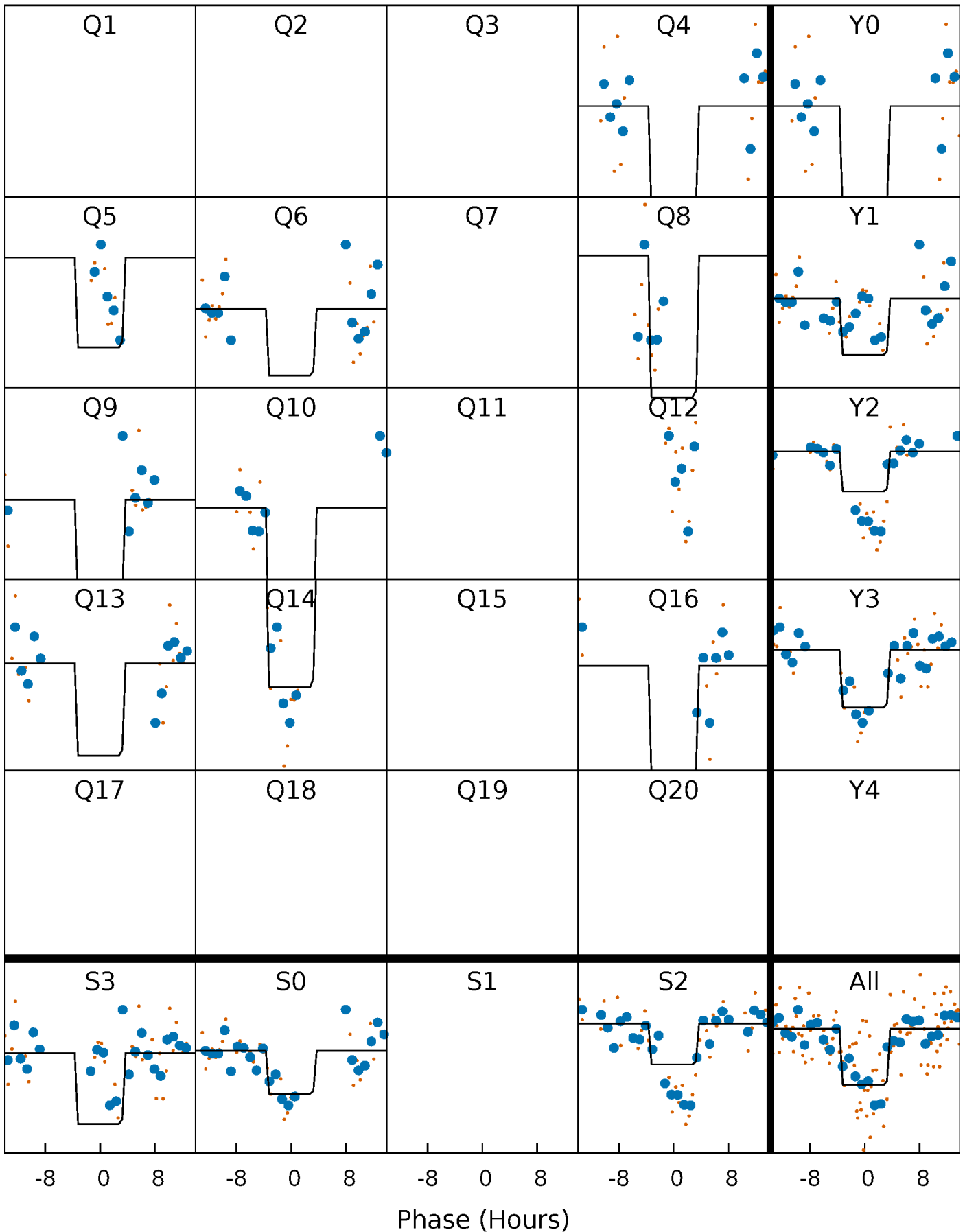
DV Quarter-Phased Transit Curves

TCE 010683367-02 $P = 75.791077$ Days $T_0 = 186.919068$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

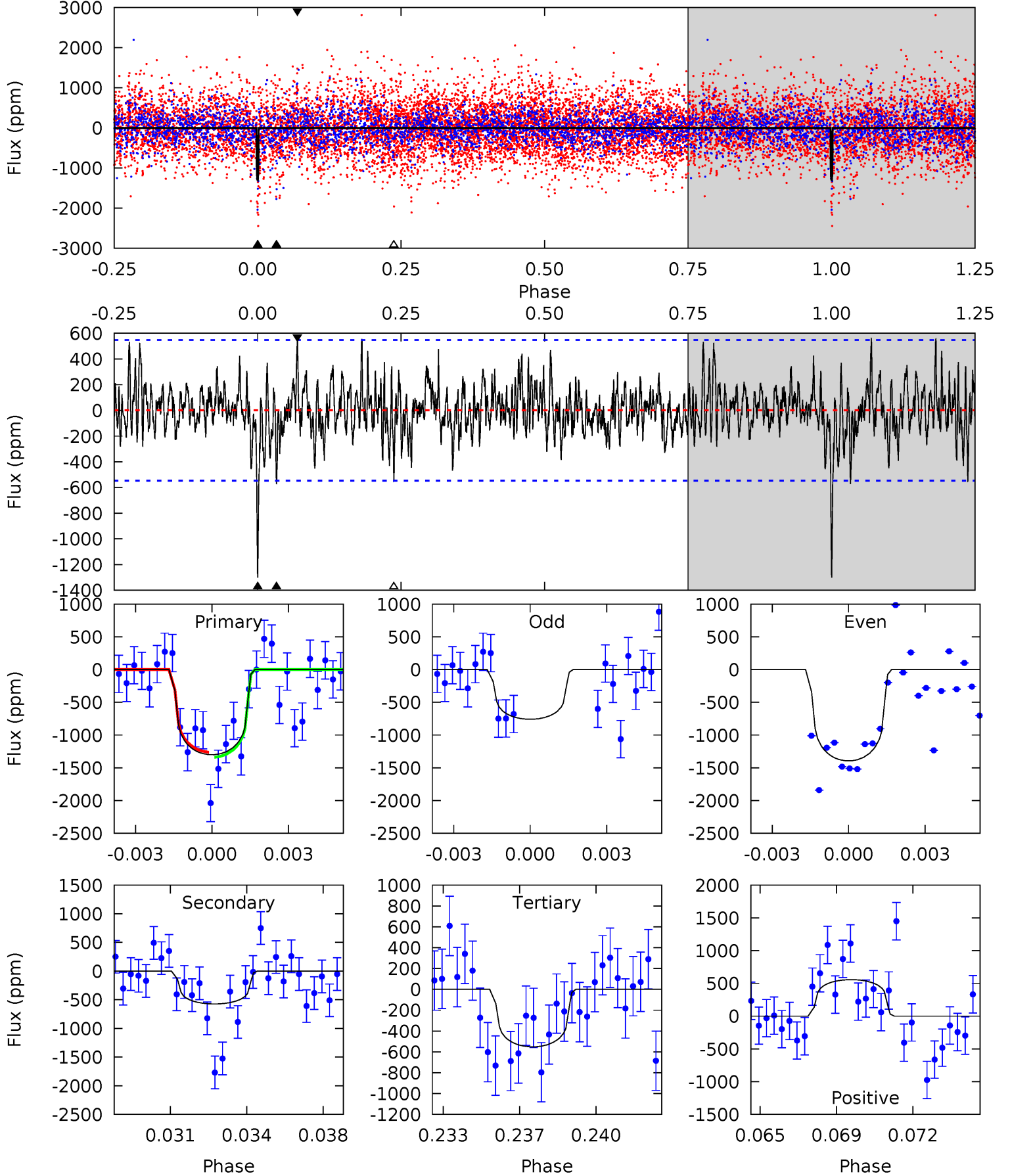
TCE 010683367-02 P= 75.807965 Days $T_0=186.696939$ (BKJD)



DV Model-Shift Uniqueness Test

010683367-02, $P = 75.791077$ Days, $E = 186.919068$ Days

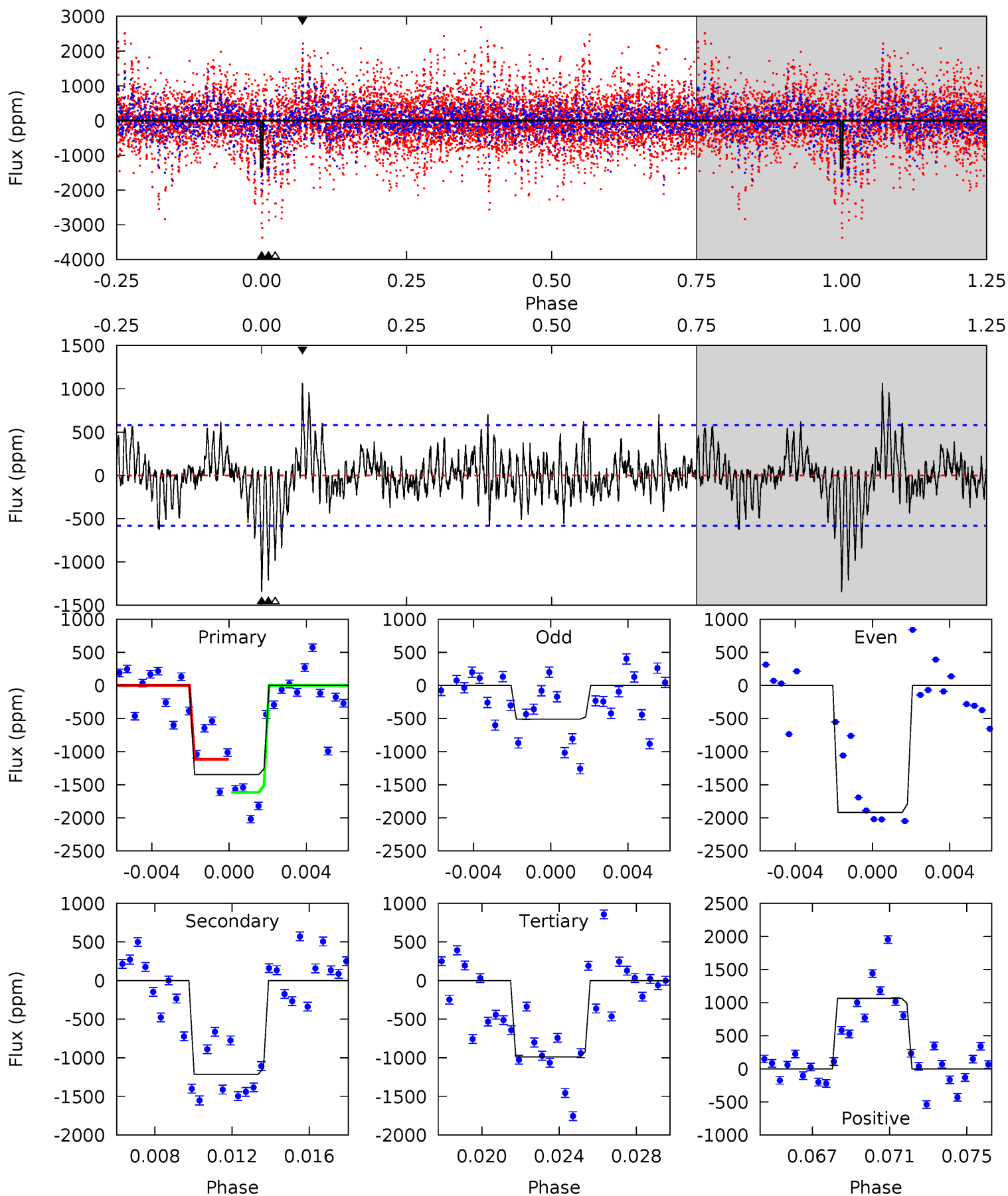
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	5.48	5.27	5.32	5.23	2.93	1.54	7.15	7.10	0.21	0.16	2.20	0.77	0.30	0.37



Alt Model-Shift Uniqueness Test

010683367-02, P = 75.807965 Days, E = 186.696939 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	10.9	8.85	9.53	5.20	2.88	1.94	3.23	2.54	2.01	1.33	6.20	1.22	0.44	2.24



Stellar Parameters For KIC 010683367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5769^{+172}_{-189}	$4.526^{+0.060}_{-0.180}$	$-0.280^{+0.300}_{-0.300}$	$0.854^{+0.232}_{-0.100}$	$0.893^{+0.110}_{-0.100}$	$2.018^{+0.510}_{-0.994}$
	+3%/-3%	+1%/-4%	+107%/-107%	+27%/-12%	+12%/-11%	+25%/-49%
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 010683367-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-573 ± 105	$4.95^{+4.61}_{-3.30}$	577^{+40}_{-27}	4179^{+2726}_{-828}	1433^{+11796}_{-1050}
Alt.	-1213 ± 112	$5.21^{+4.66}_{-3.15}$	575^{+39}_{-27}	4709^{+2769}_{-923}	2668^{+14240}_{-1886}

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 $A_{obs} \gg 1.0$

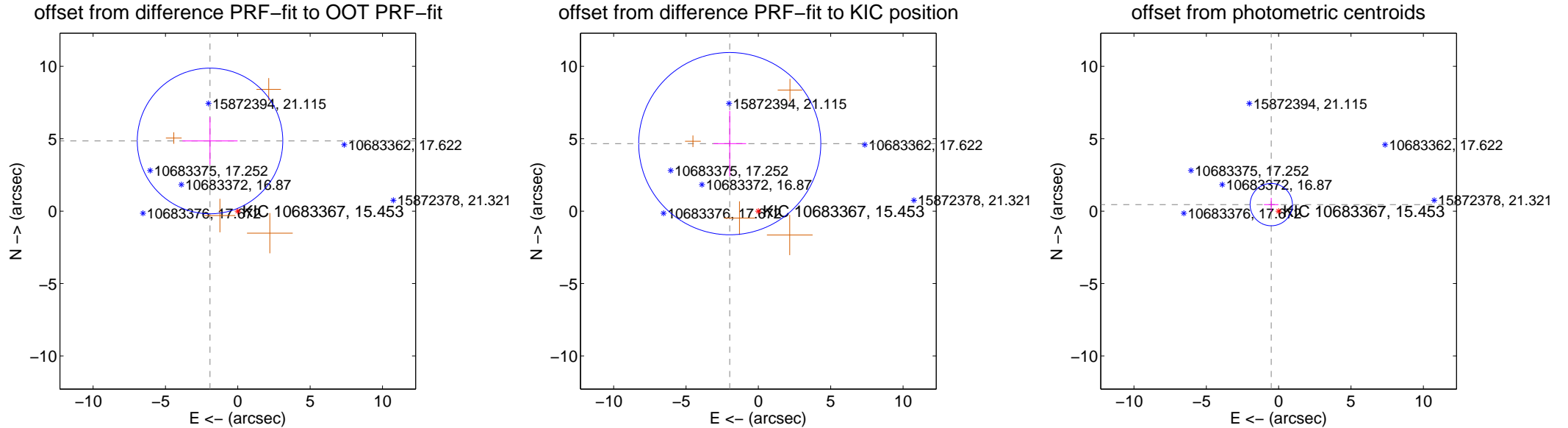
DV Centroid Data

Supplemental centroid analysis for 010683367-02. Kepler magnitude: 15.45. Transit SNR 10.76

There are 0 quarters with good PRF difference image offsets

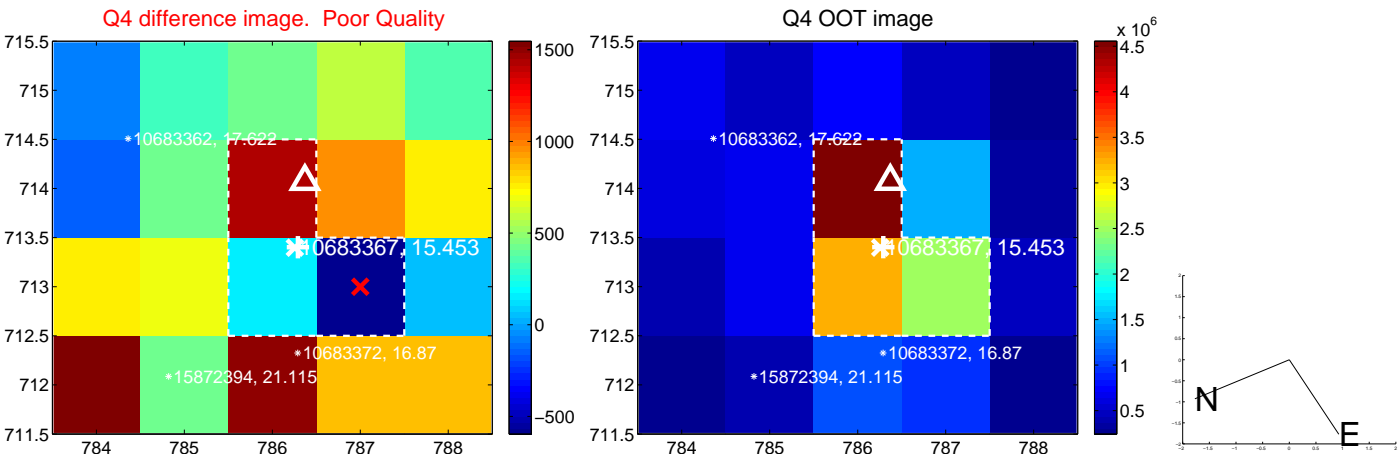
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.214 ± 1.676	3.11	1.921 ± 1.908	4.847 ± 1.637
PRF-fit source offset from KIC position	5.063 ± 2.098	2.41	1.979 ± 1.130	4.660 ± 2.258
photometric centroid source offset	0.68 ± 0.49	1.40	0.51 ± 0.50	0.45 ± 0.47

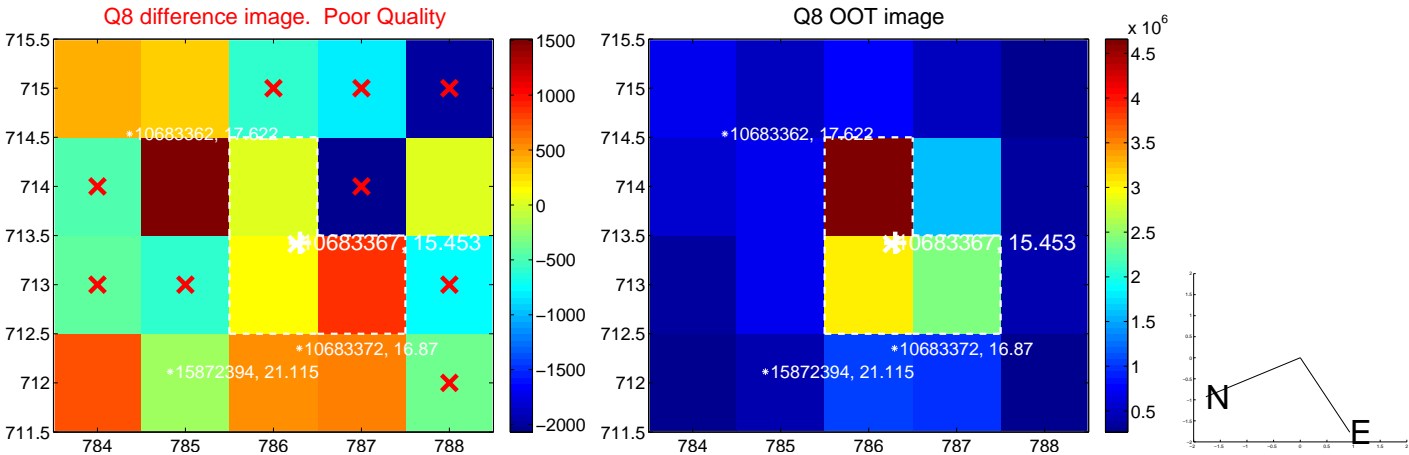
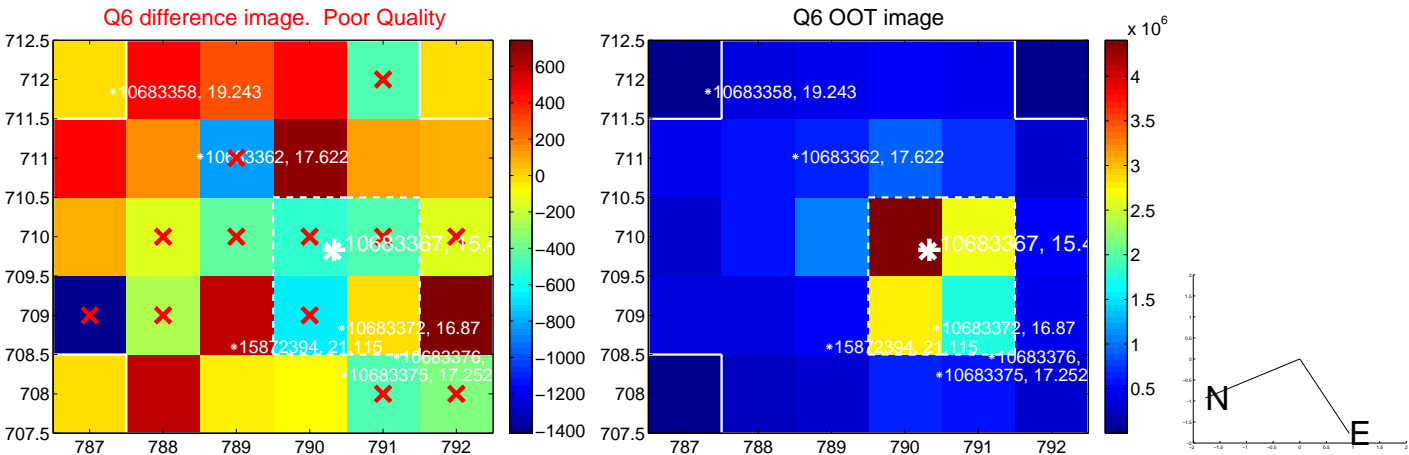
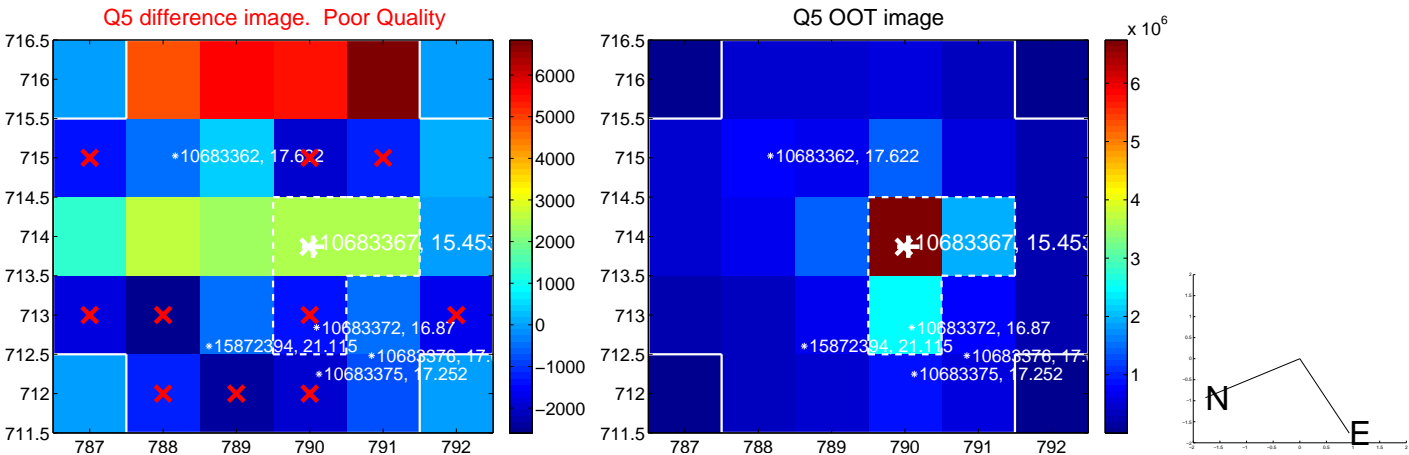


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

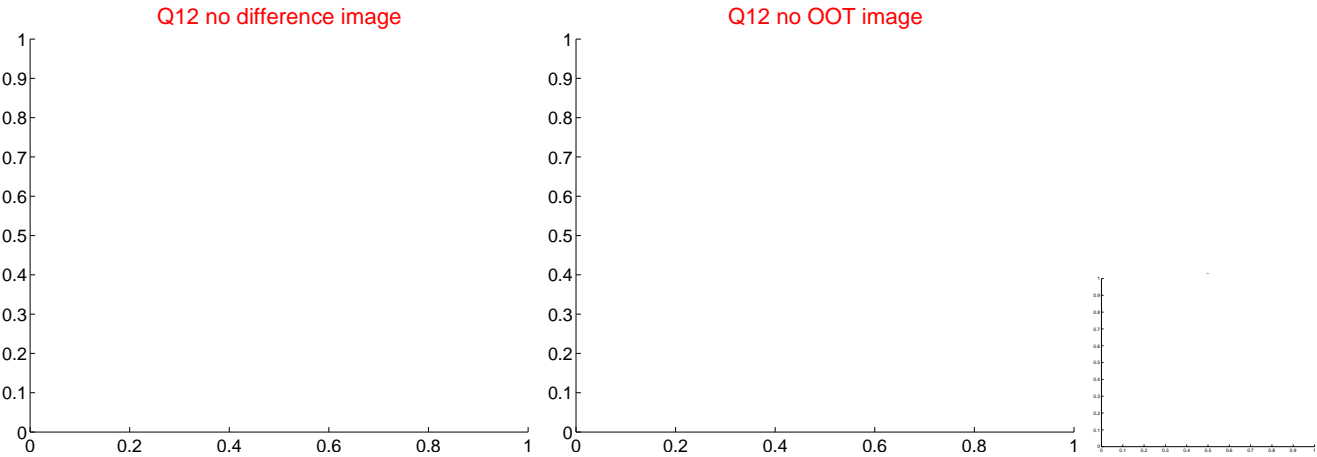
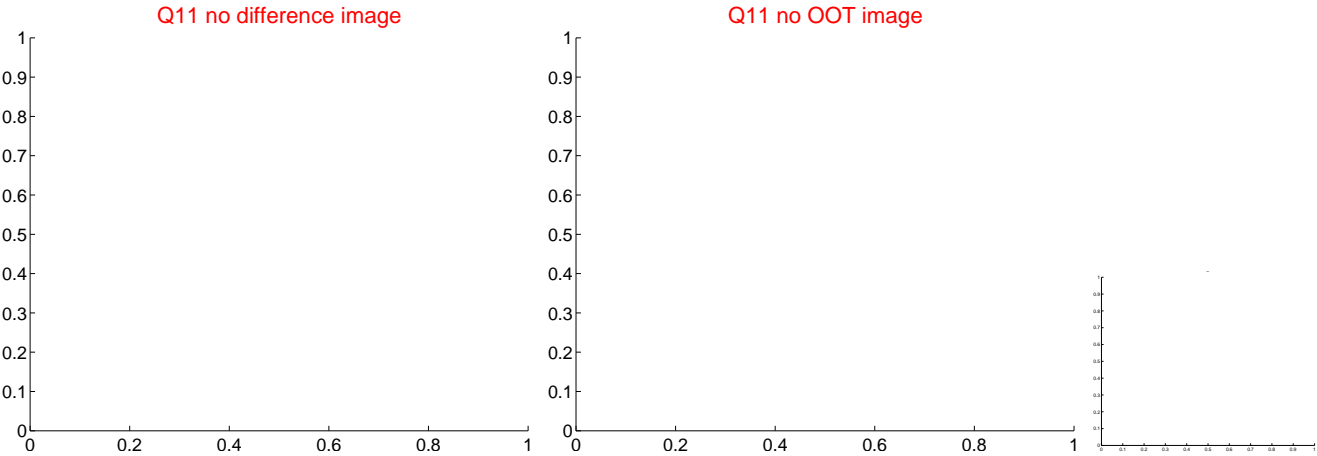
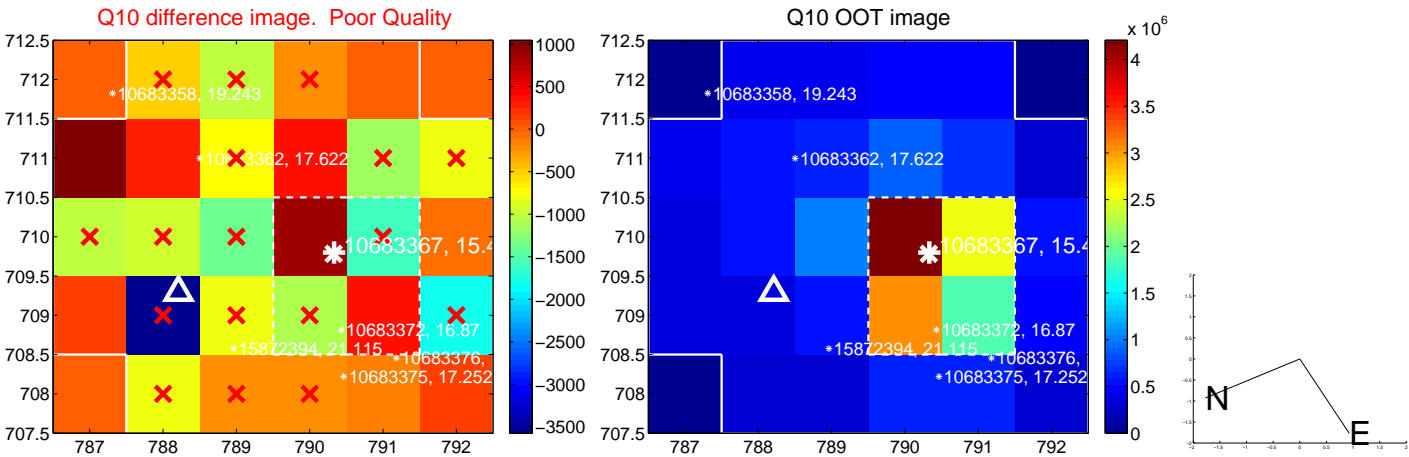
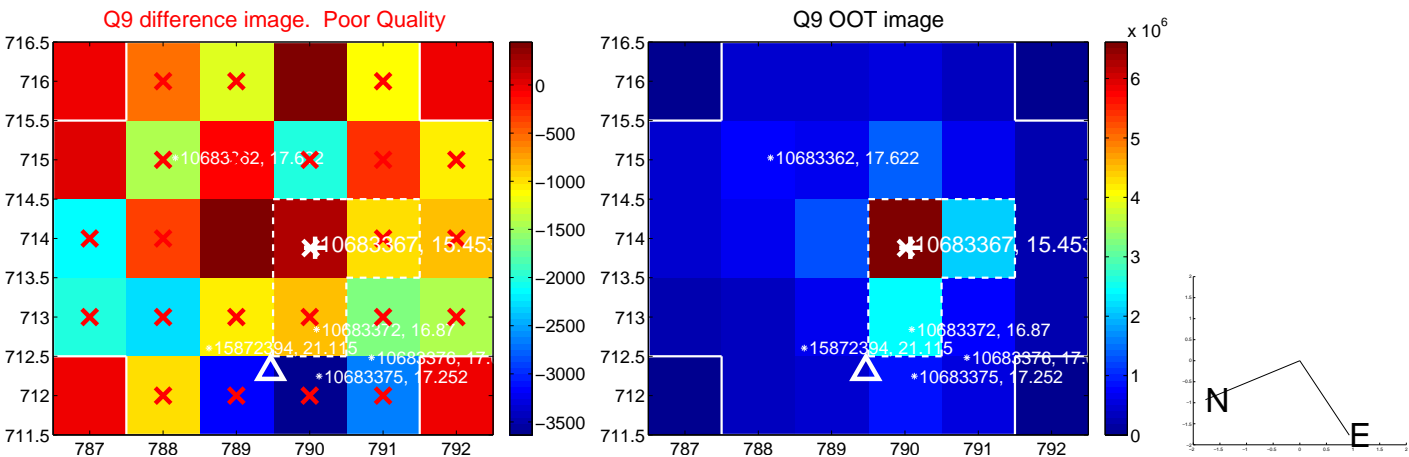
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



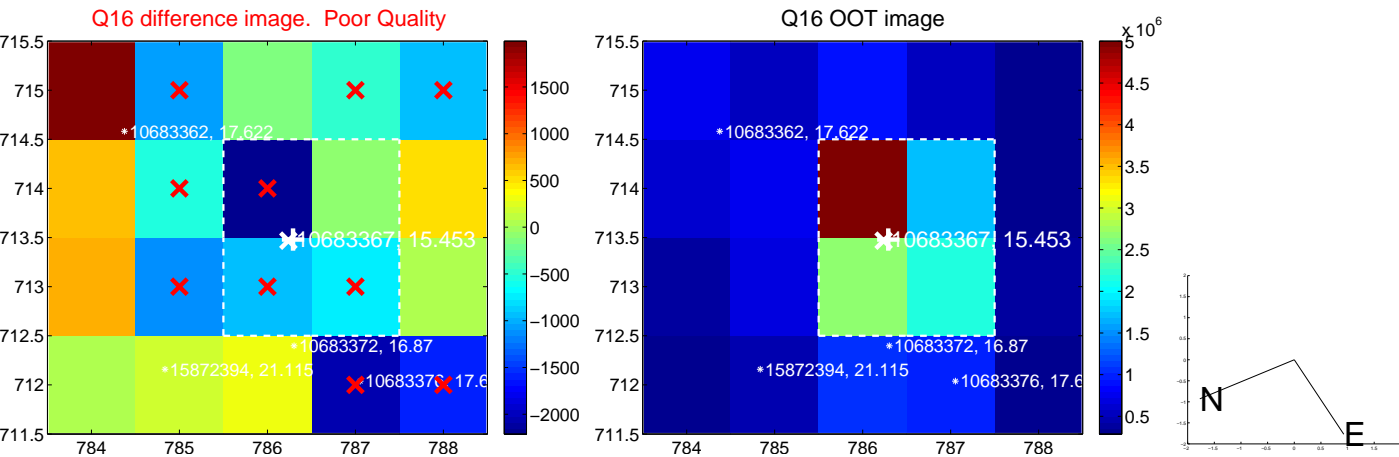
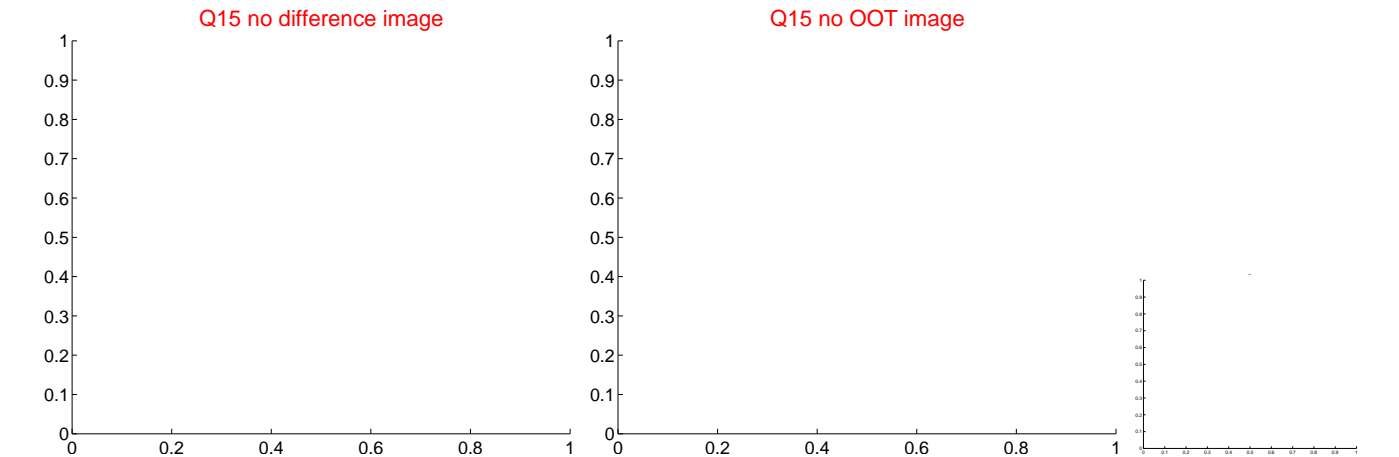
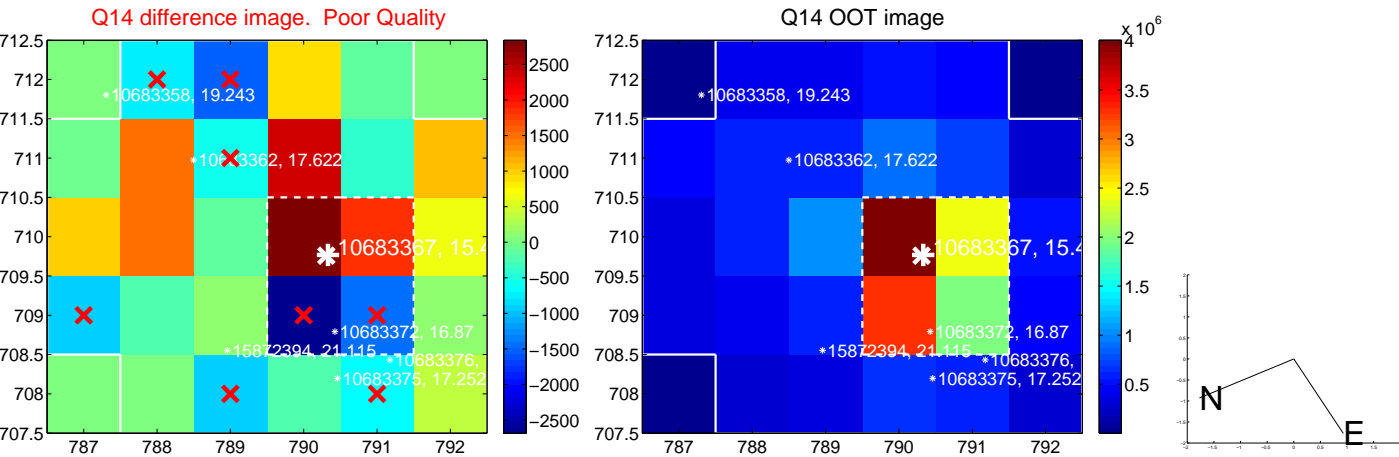
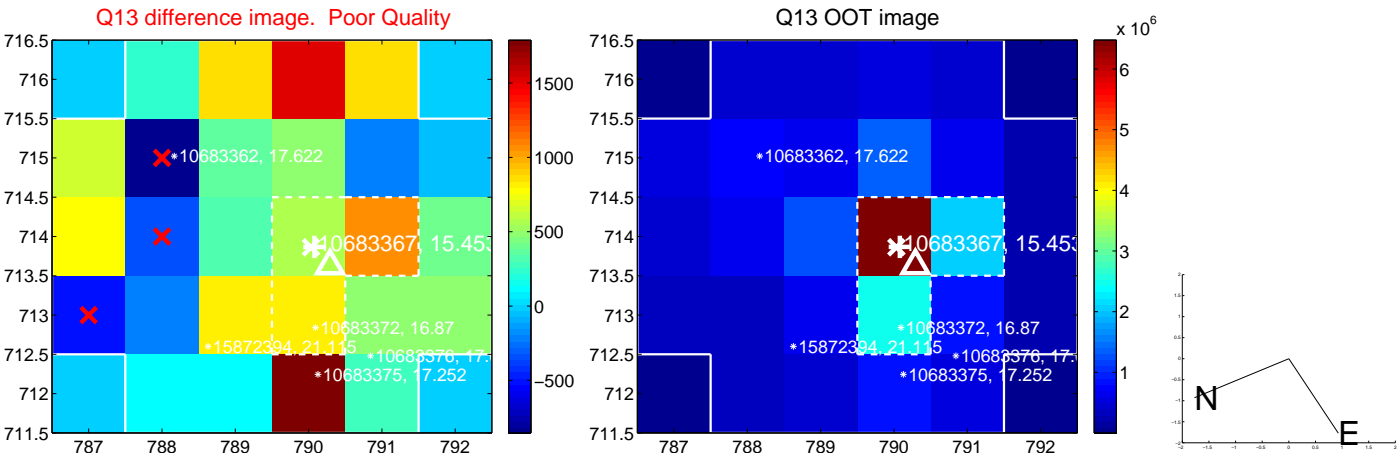
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



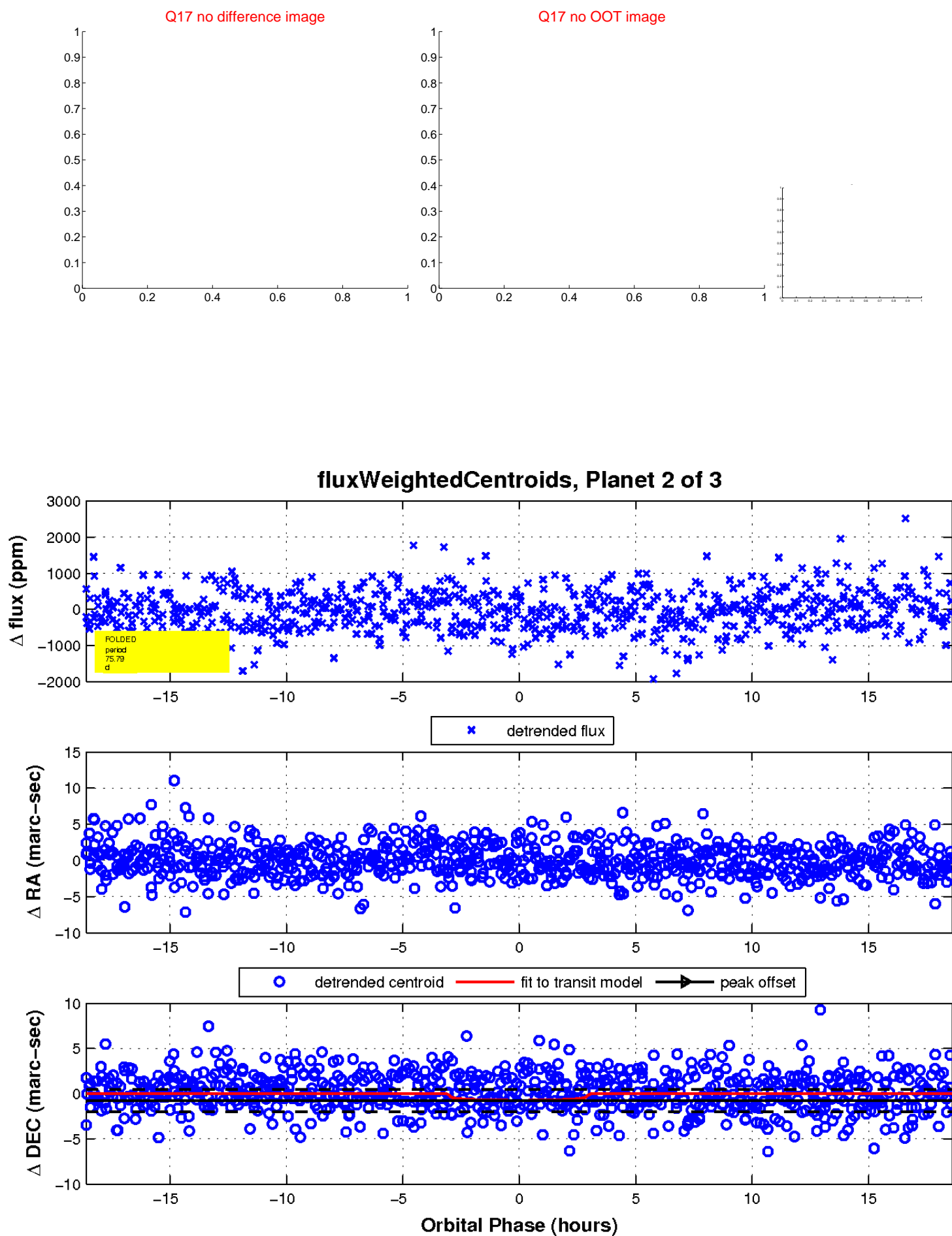
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

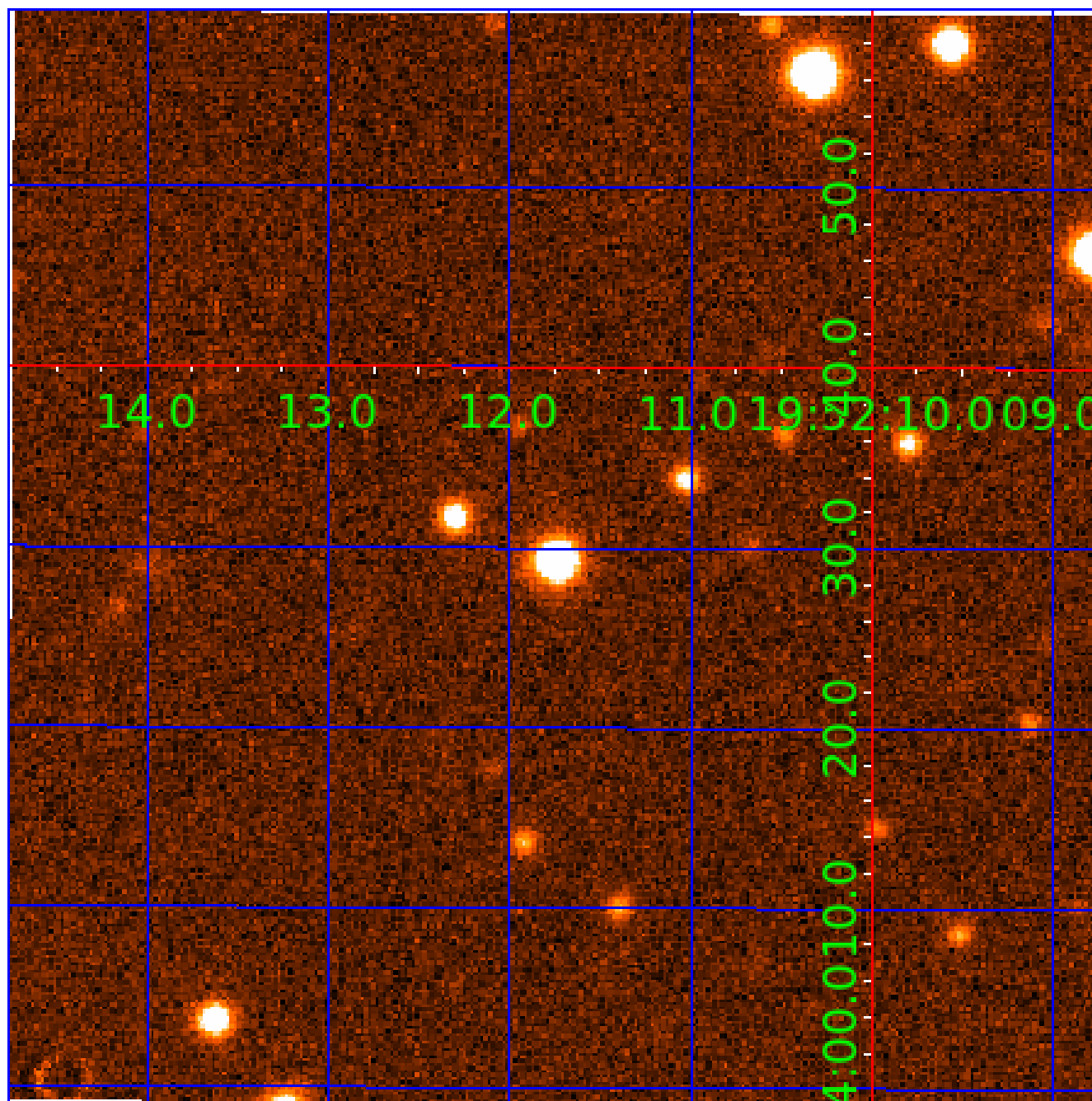


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010683367

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})
010683367-01	OBS	No	0.886081	132.427990	76.1	5.394	8.1	9.3	0.85	5769	0.77	2393.16
010683367-02	OBS	No	75.791077	186.919068	1441.4	6.201	13.6	10.8	0.85	5769	3.25	6.35
010683367-03	OBS	No	28.377623	151.574576	521.5	5.527	7.8	7.0	0.85	5769	2.12	23.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010683367-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
010683367-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010683367-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

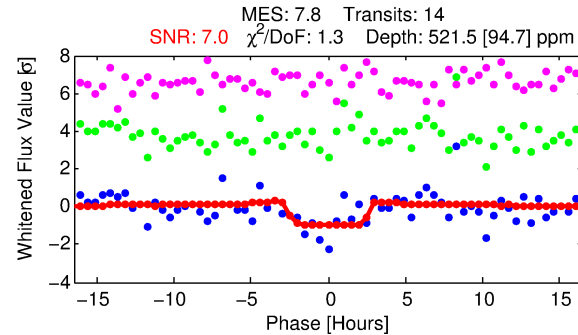
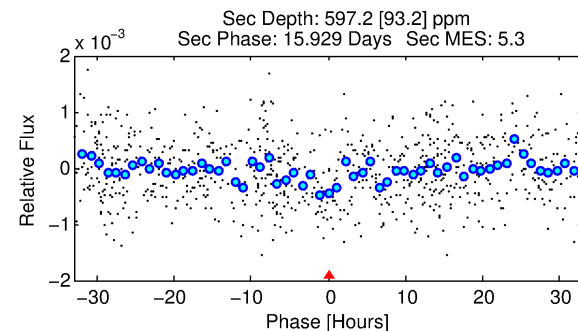
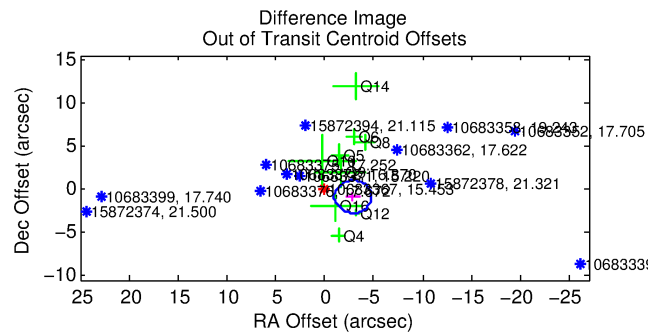
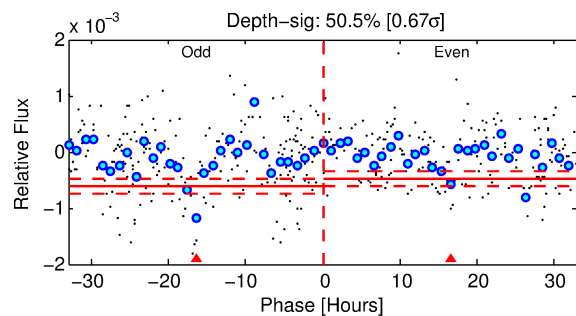
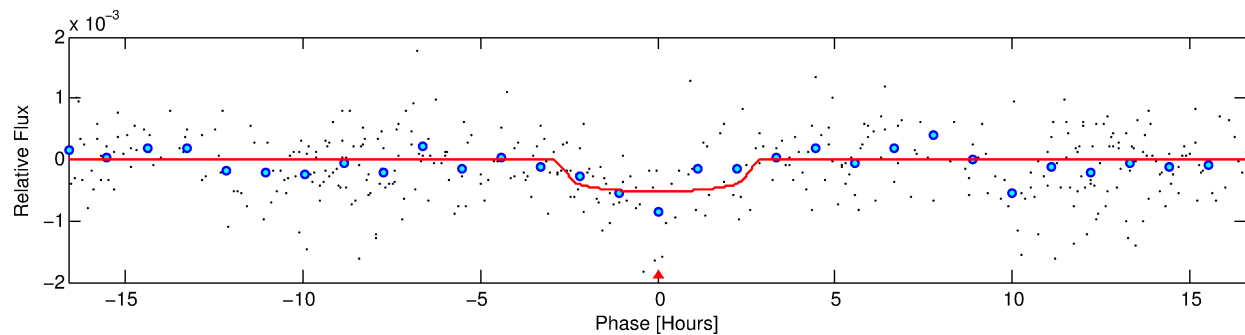
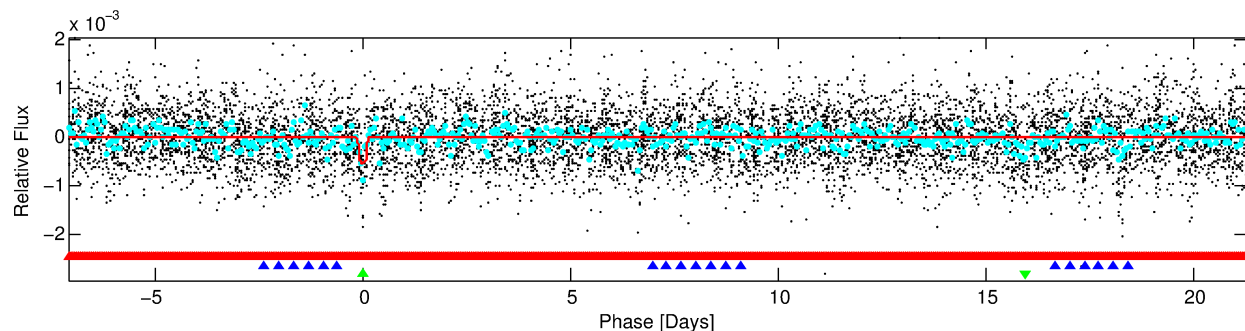
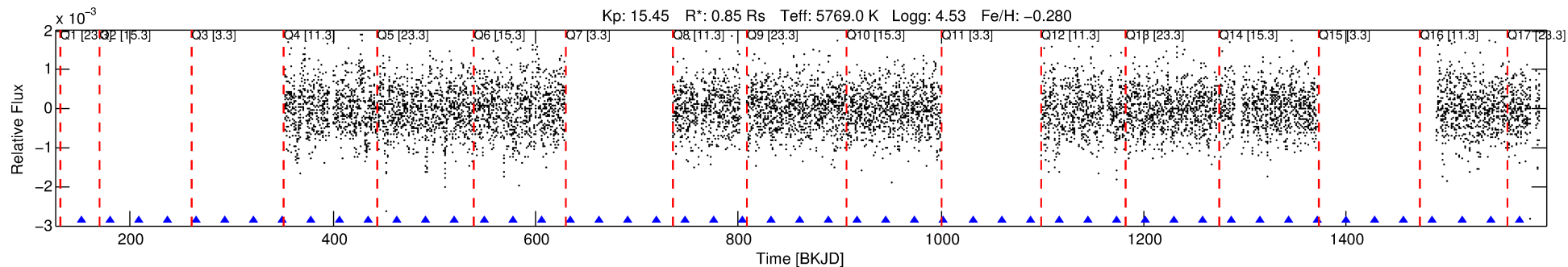
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010683367-03

No Significant Match Found

DV One-Page Summary

KIC: 10683367 Candidate: 3 of 3 Period: 28.378 d



DV Fit Results:

Period = 28.37762 [0.00258] d
Epoch = 151.5746 [0.0859] BKJD
Rp/R* = 0.0227 [0.0207]
a/R* = 27.35 [114.55]
b = 0.75 [2.46]
Seff = 23.53 [8.36]
Teq = 562 [50] K
Rp = 2.12 [2.01] Re
a = 0.1754 [0.0399] AU
Ag = 2256.76 [4199.71] [0.54 σ]
Teffp = 5985 [2747] K [1.97 σ]

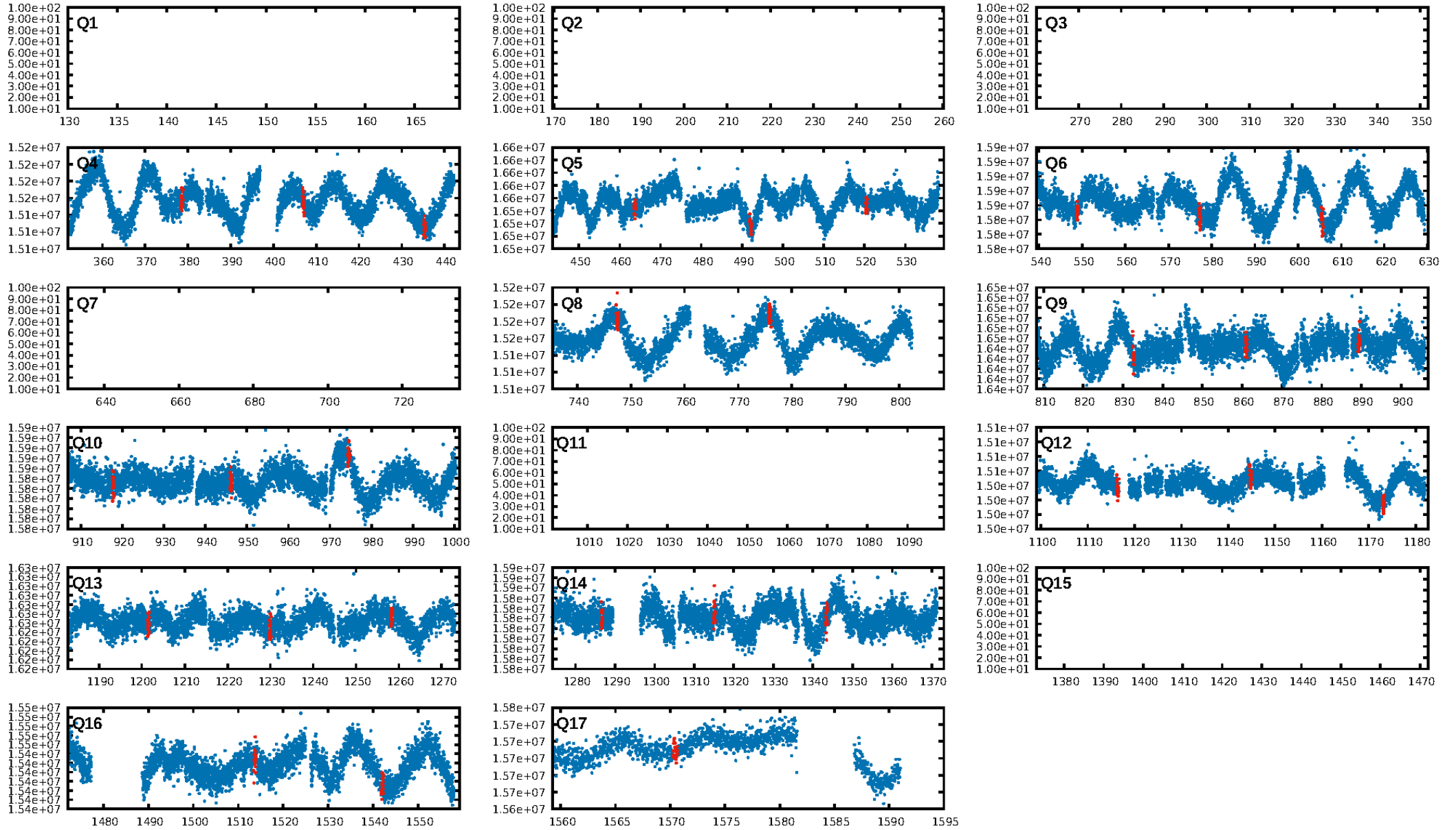
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [85.43 σ]
LongPeriod-sig: 100.0% [136.98 σ]
ModelChiSquare2-sig: 23.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.65e-09
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 0.1154
Centroid-sig: N/A
Centroid-so: 2.024 arcsec [2.41 σ]
OotOffset-rm: 2.984 arcsec [4.75 σ]
KicOffset-rm: 2.981 arcsec [4.77 σ]
OotOffset-st: 3/0/4/2 [9]
KicOffset-st: 3/0/4/2 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 0.00 [0/11]

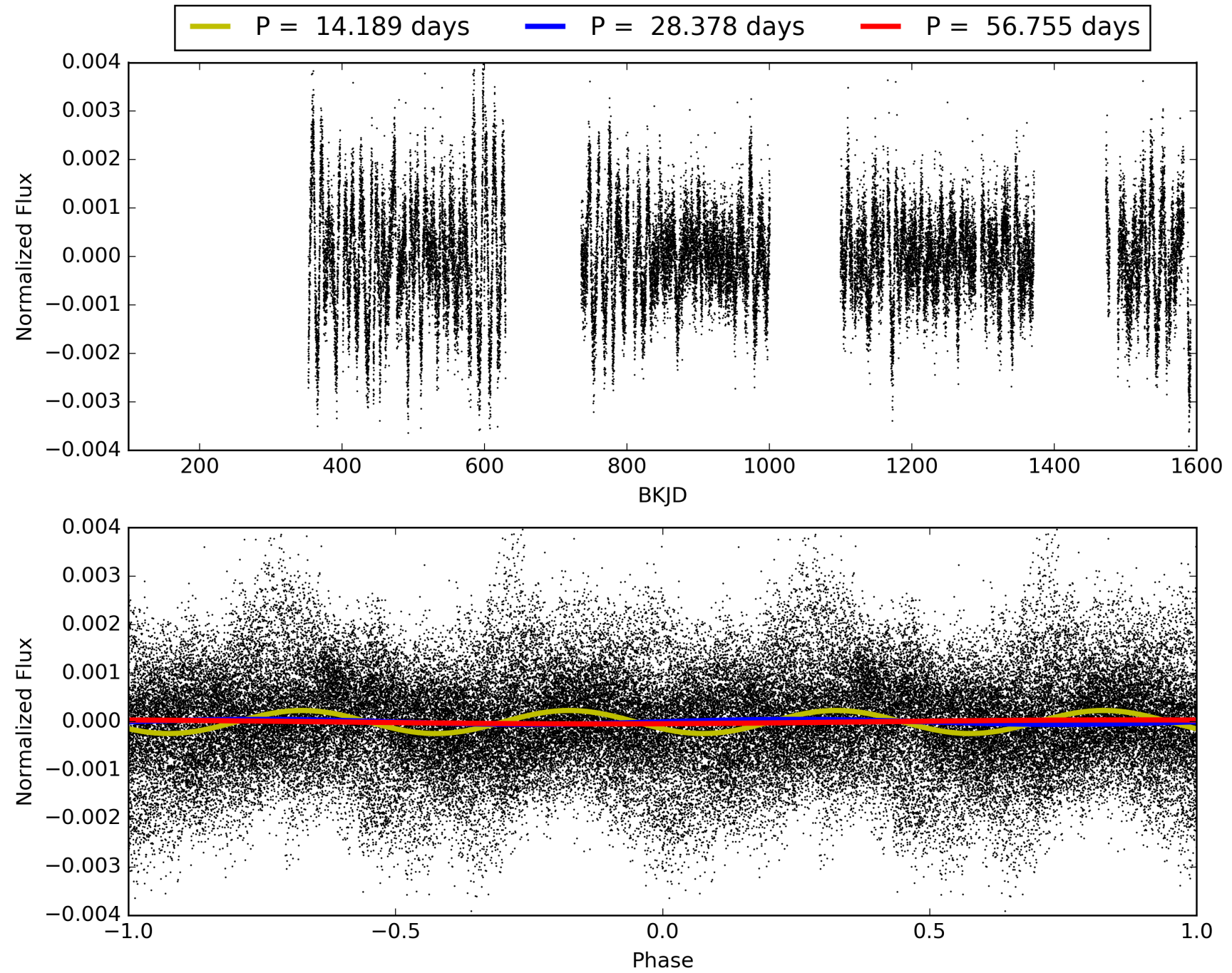
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:01:11 Z

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

TCE 010683367-03, PDC Light Curves

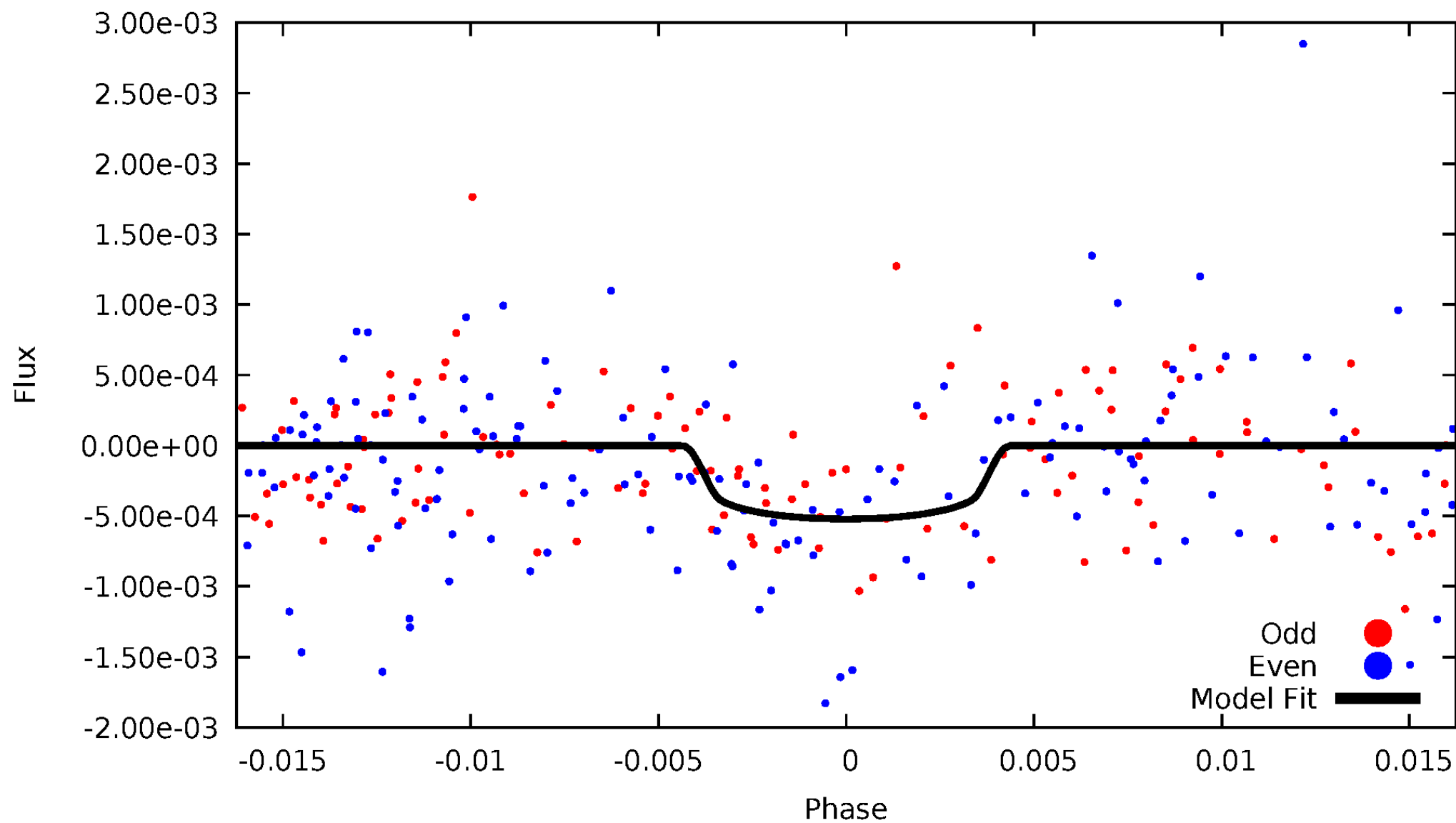


TCE 010683367-03



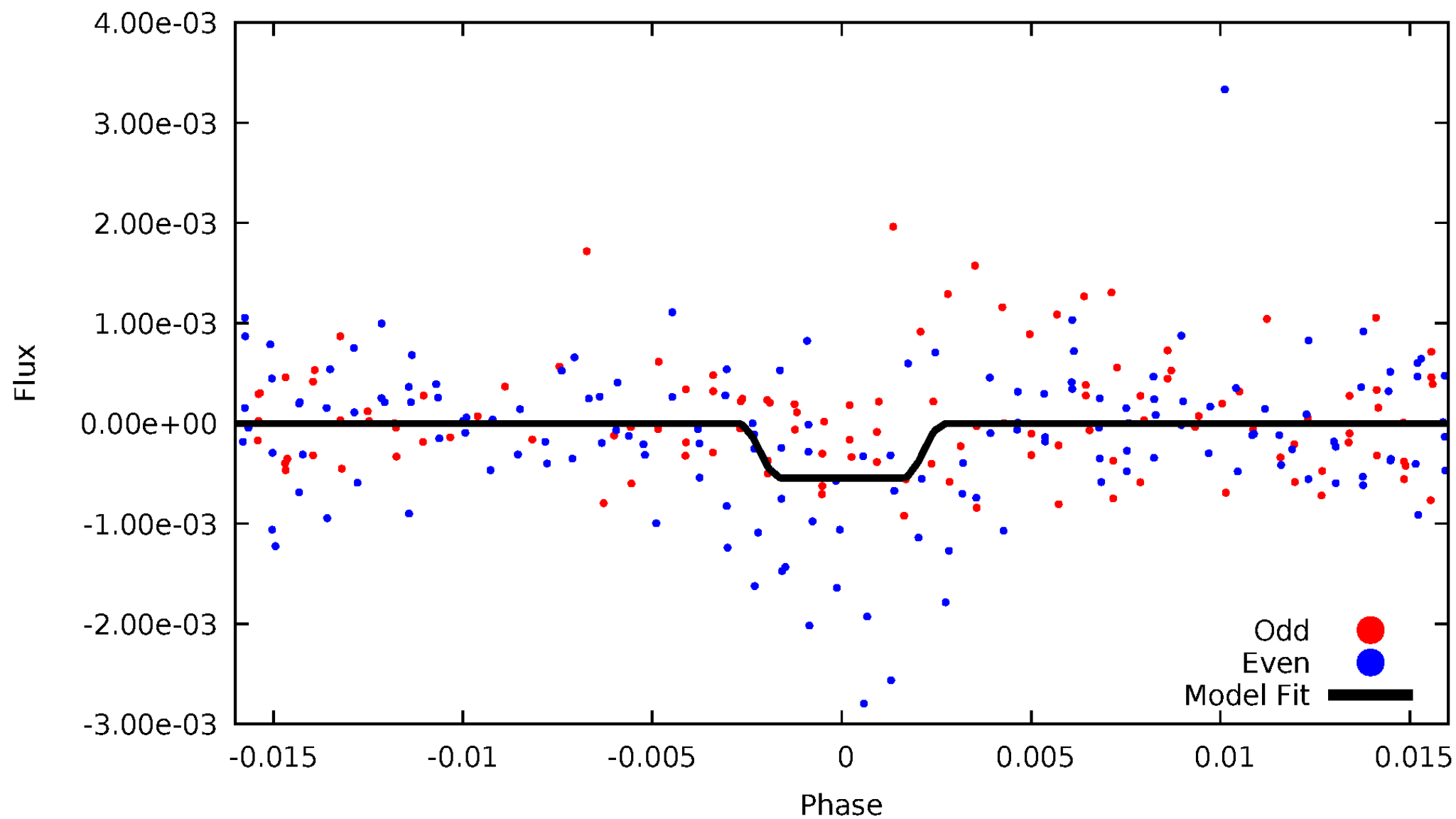
DV Odd/Even

TCE 010683367-03



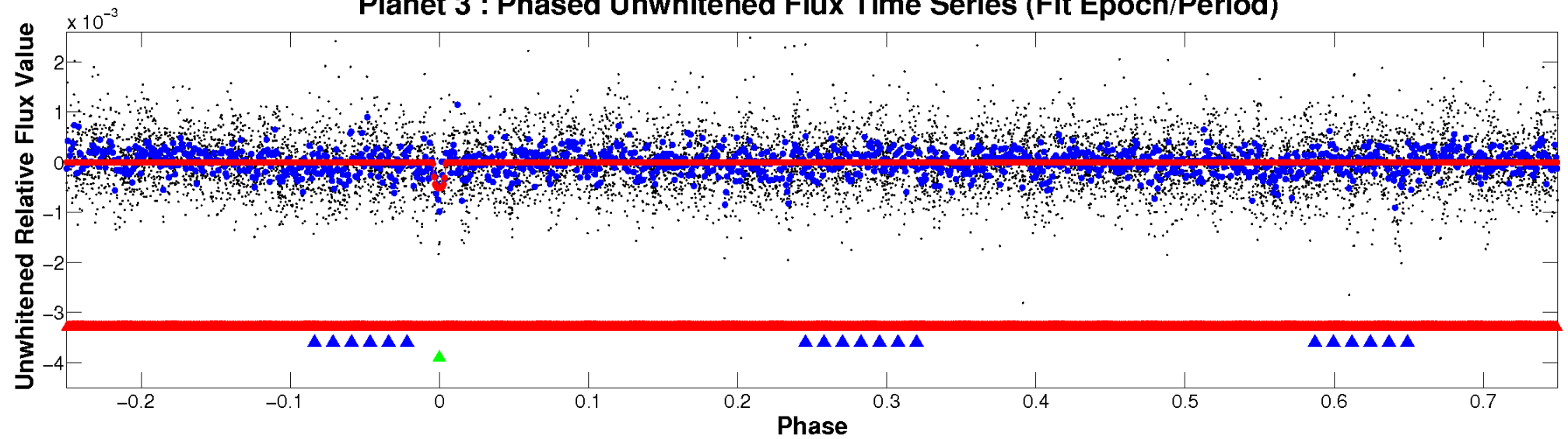
ALT Odd/Even

TCE 010683367-03

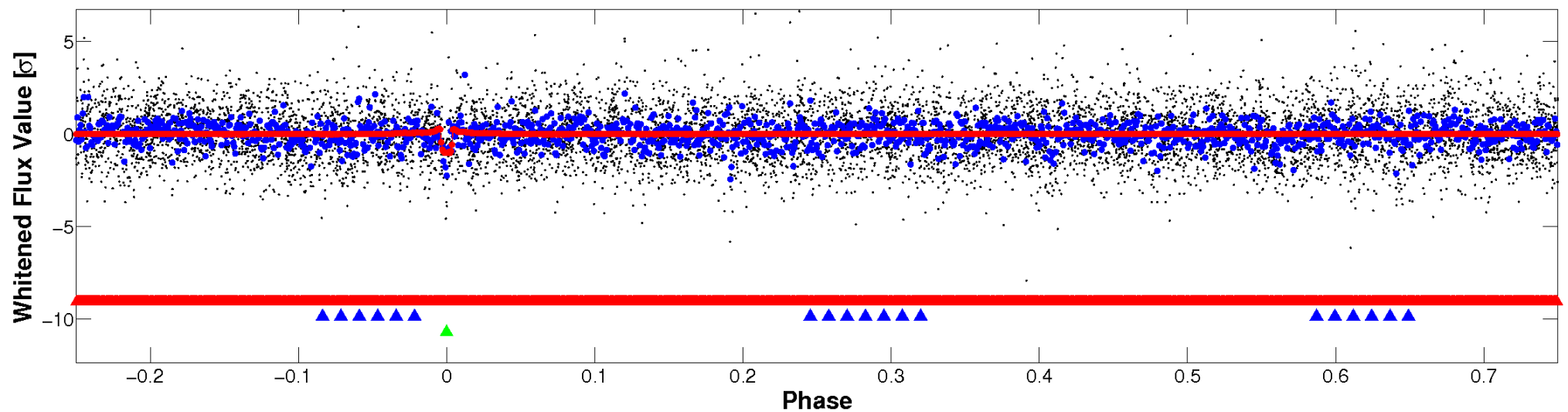


Non-Whitened Vs. Whitened Light Curve

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

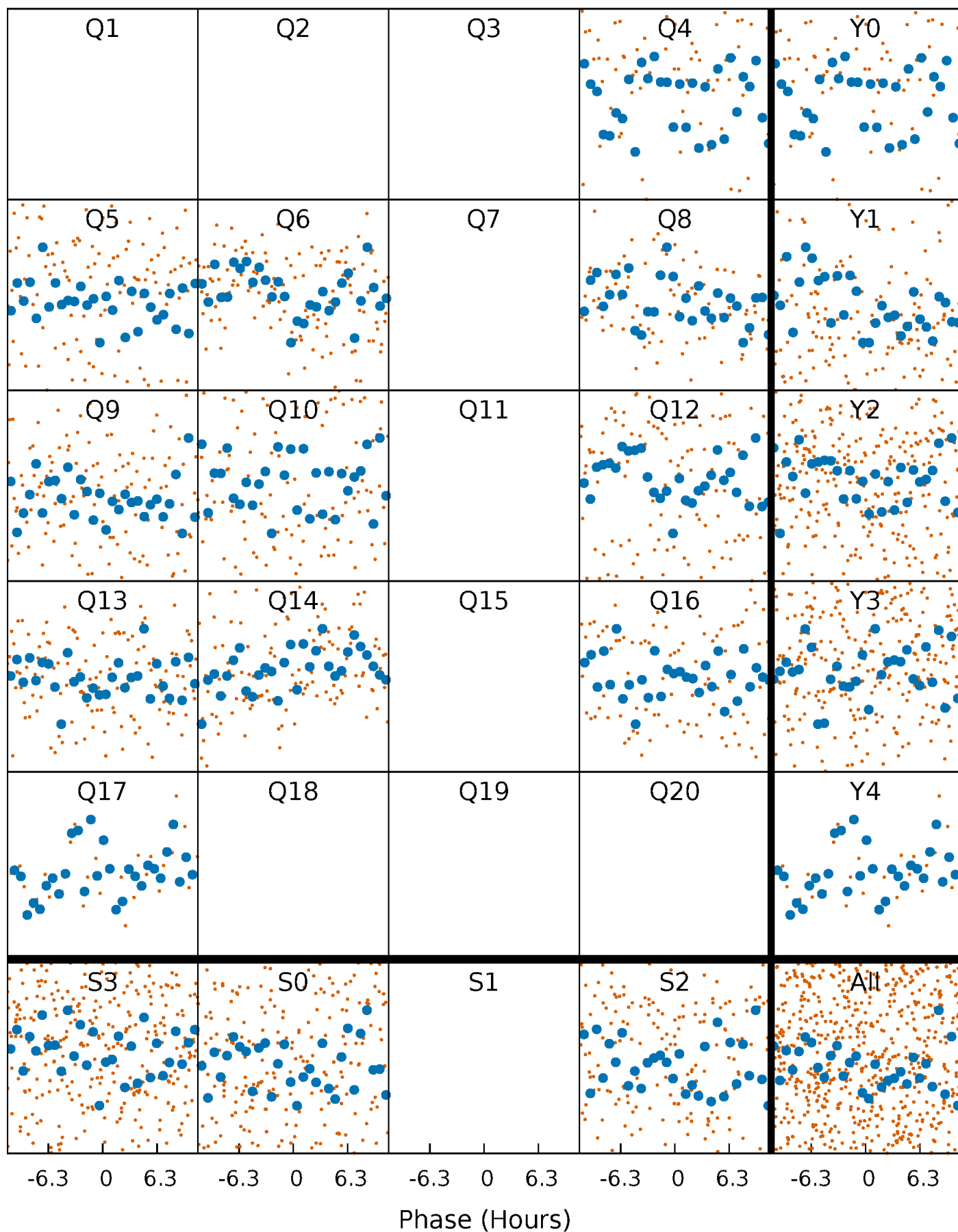


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



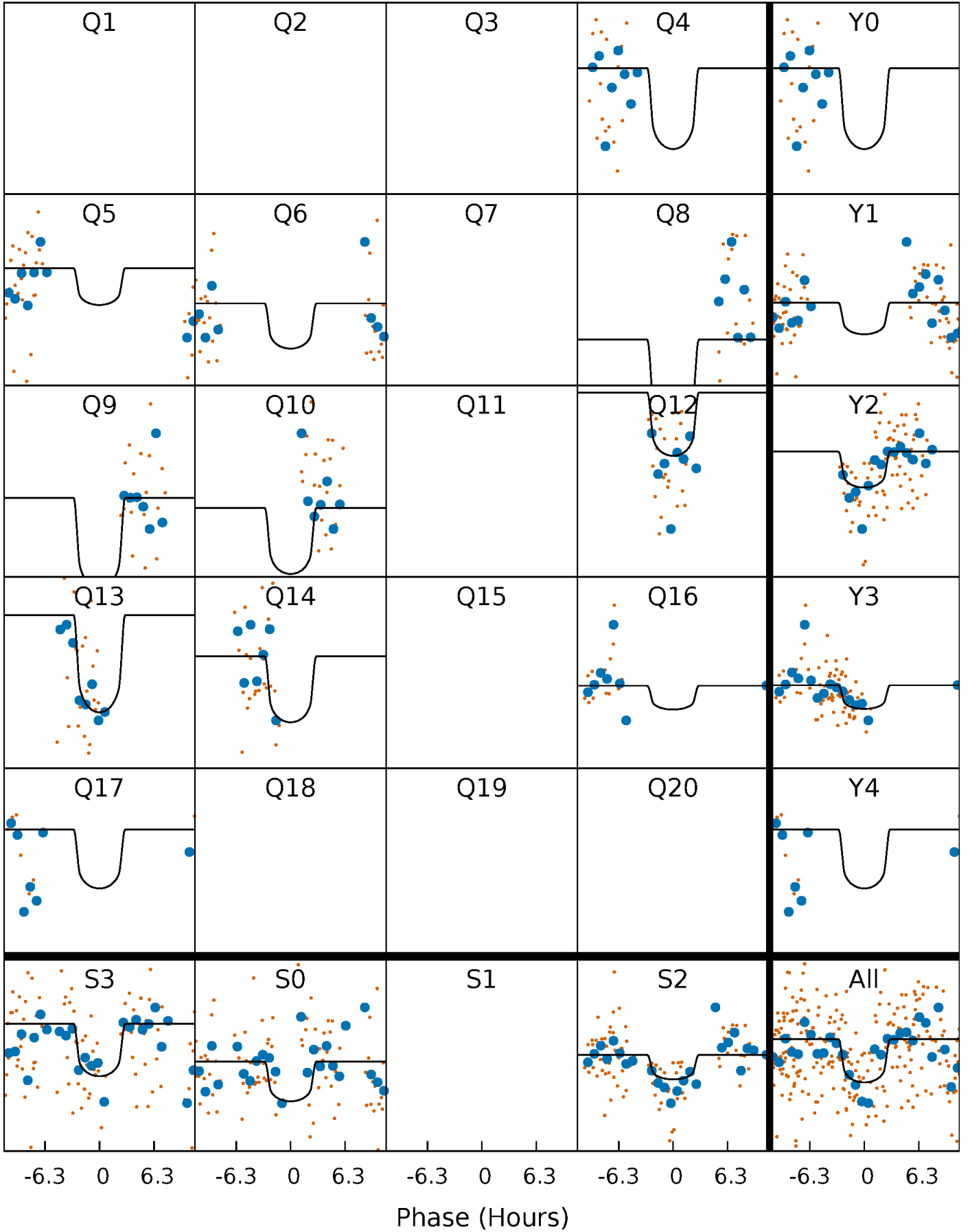
PDC Quarter-Phased Transit Curves

TCE 010683367-03 P= 28.377623 Days $T_0=151.574576$ (BKJD)



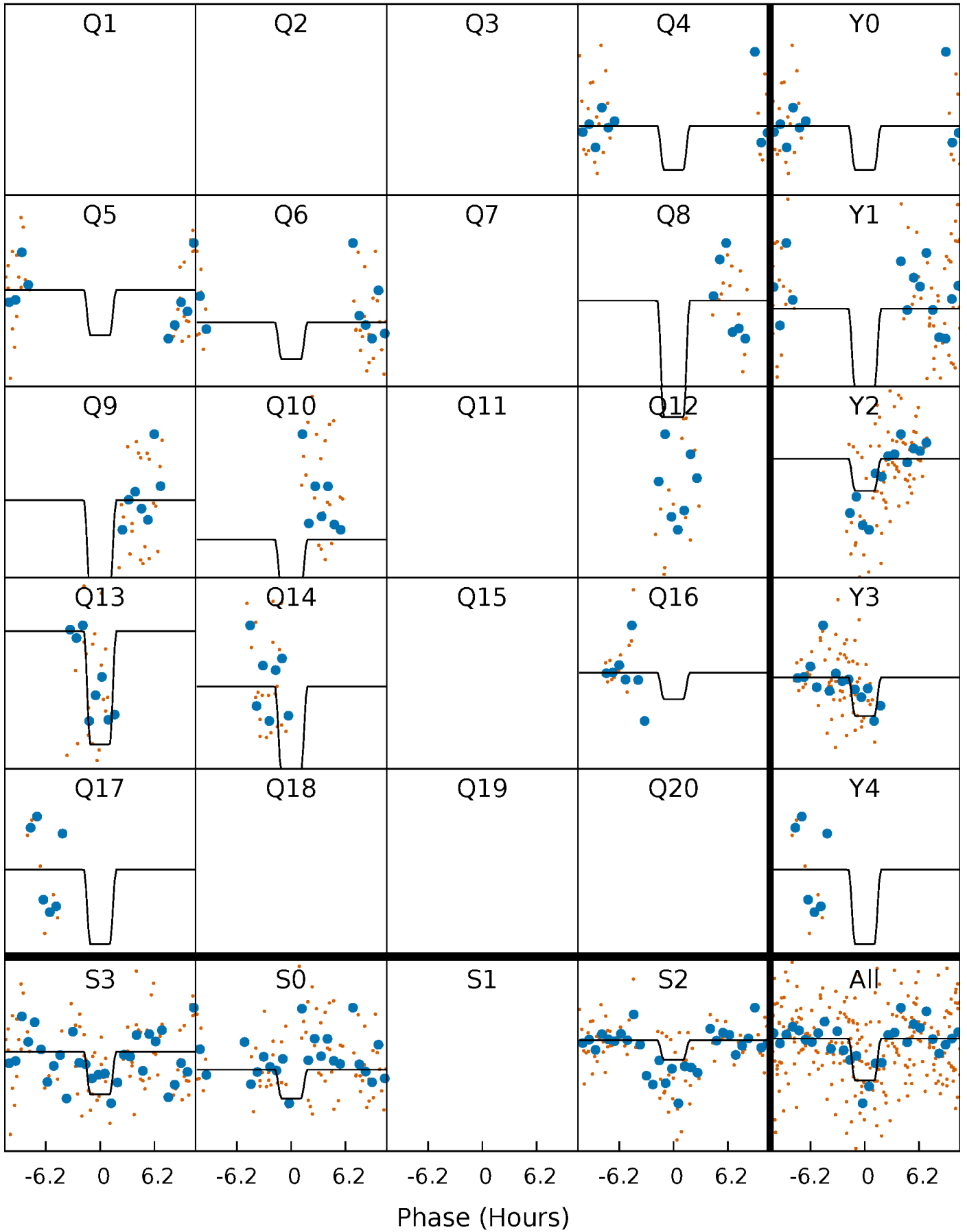
DV Quarter-Phased Transit Curves

TCE 010683367-03 P= 28.377623 Days $T_0=151.574576$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

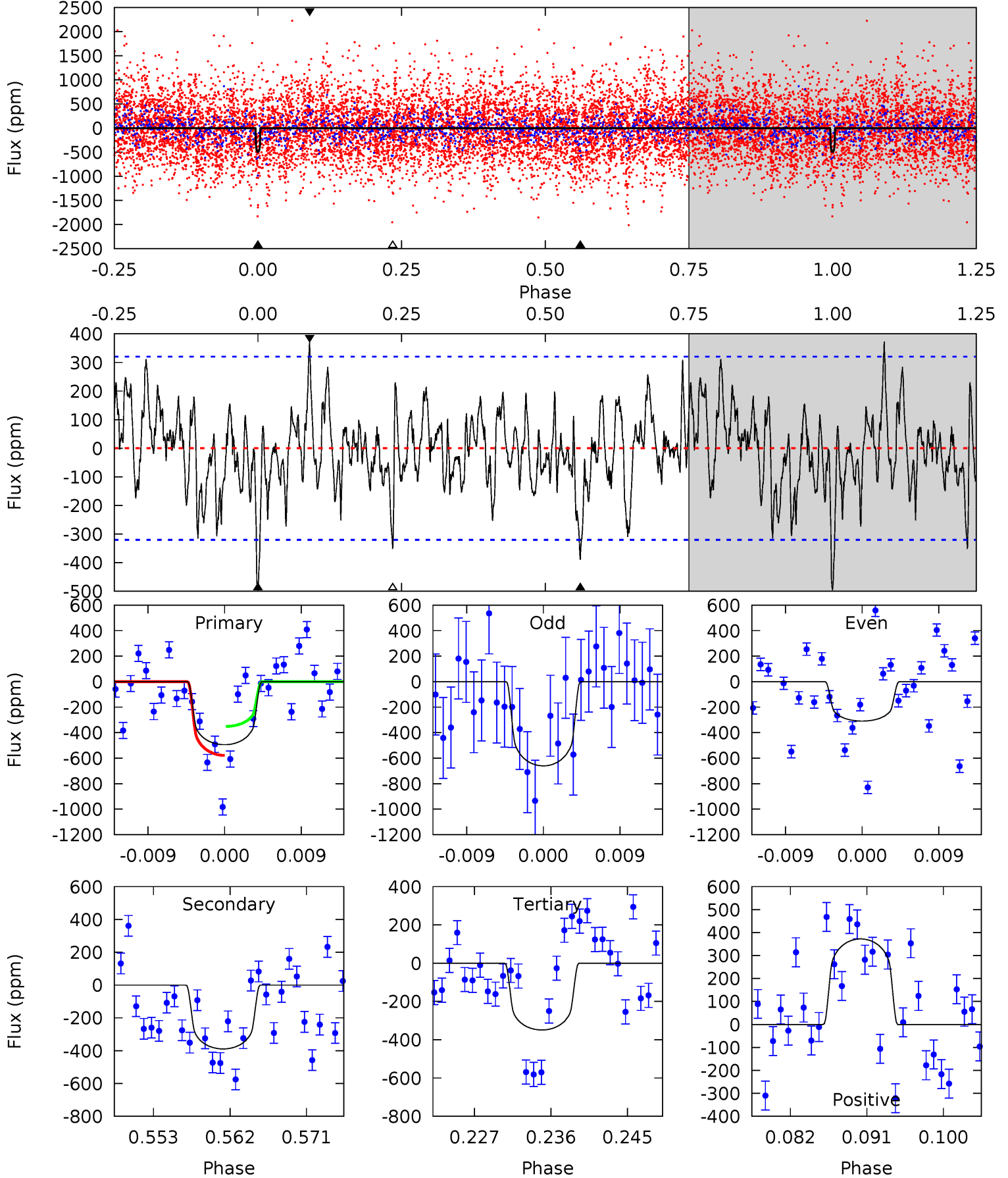
TCE 010683367-03 $P = 28.373087$ Days $T_0 = 151.705389$ (BKJD)



DV Model-Shift Uniqueness Test

010683367-03, $P = 28.377623$ Days, $E = 151.574576$ Days

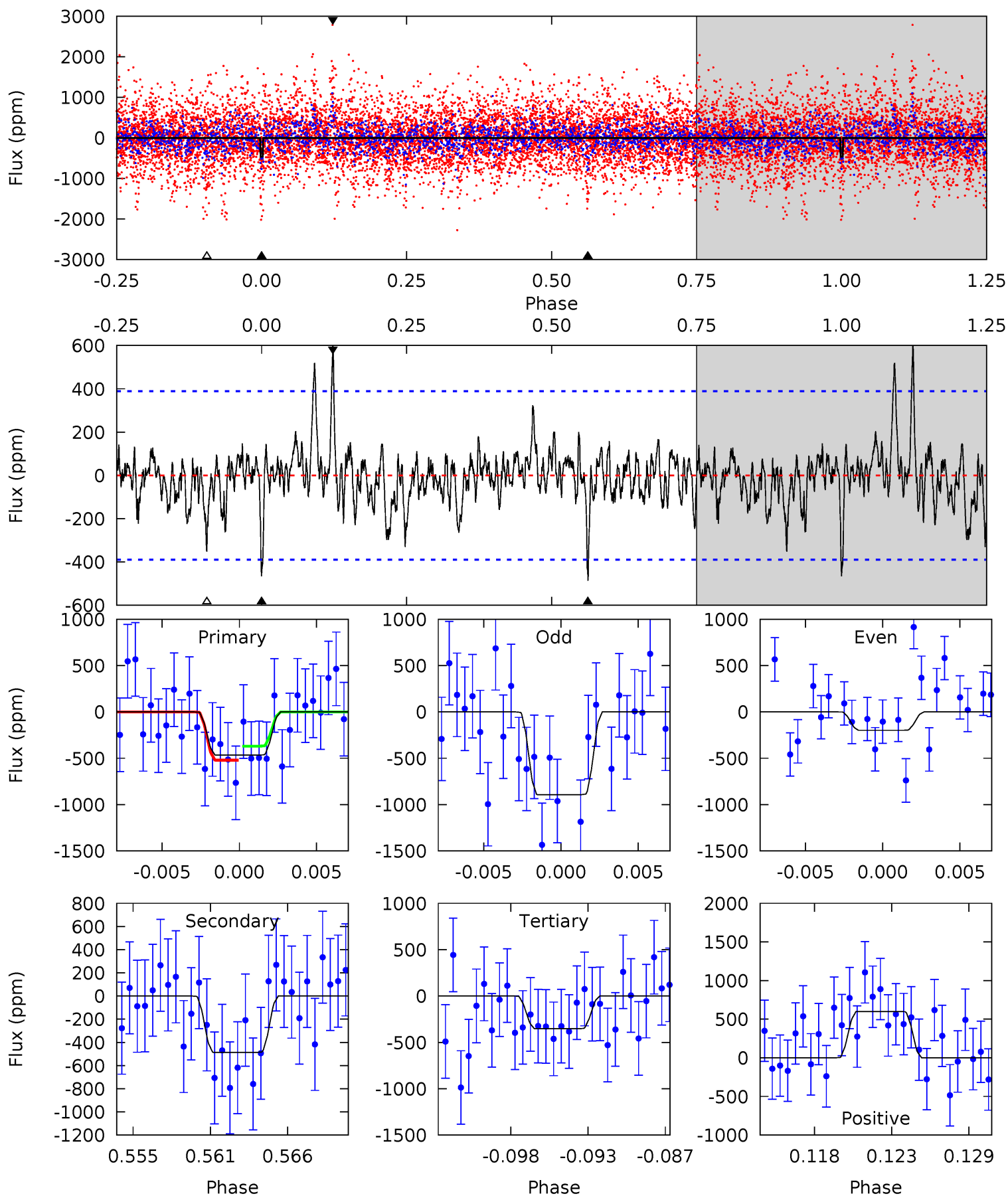
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.79	6.13	5.50	5.86	5.05	2.61	1.85	2.29	1.92	0.63	0.27	2.81	0.73	0.43	1.75



Alt Model-Shift Uniqueness Test

010683367-03, P = 28.373087 Days, E = 151.705389 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.17	6.43	4.66	7.94	5.15	2.80	1.43	1.51	-1.77	1.77	-1.51	4.70	0.79	0.55	0.96



Stellar Parameters For KIC 010683367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5769^{+172}_{-189}	$4.526^{+0.060}_{-0.180}$	$-0.280^{+0.300}_{-0.300}$	$0.854^{+0.232}_{-0.100}$	$0.893^{+0.110}_{-0.100}$	$2.018^{+0.510}_{-0.994}$
	+3%/-3%	+1%/-4%	+107%/-107%	+27%/-12%	+12%/-11%	+25%/-49%
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 010683367-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-389 ± 63	$2.57^{+1.76}_{-1.64}$	797^{+52}_{-38}	5008^{+3523}_{-964}	991^{+6310}_{-652}
Alt.	-486 ± 76	$2.59^{+1.87}_{-1.47}$	798^{+50}_{-40}	5292^{+2898}_{-1069}	1264^{+5161}_{-870}

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 $A_{obs} \gg 1.0$

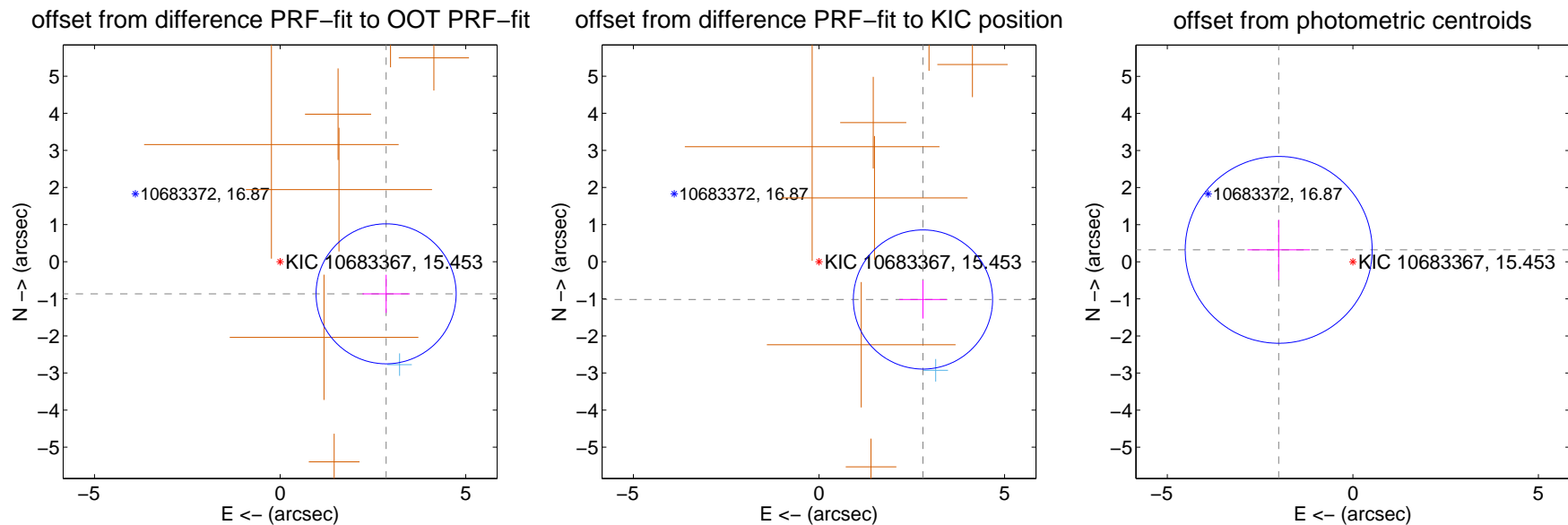
DV Centroid Data

Supplemental centroid analysis for 010683367-03. Kepler magnitude: 15.45. Transit SNR 7.02

There are 1 quarters with good PRF difference image offsets

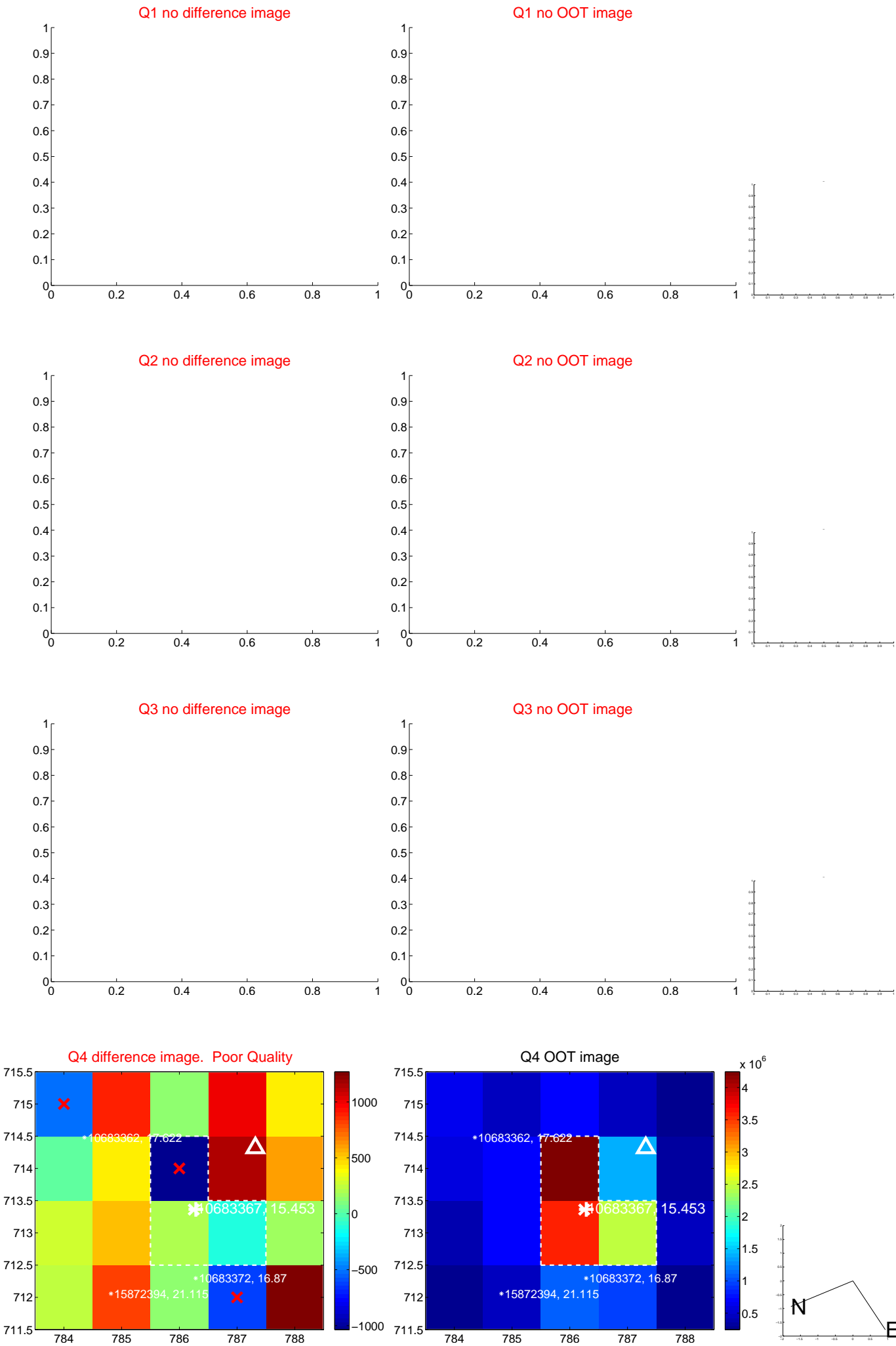
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.984 ± 0.629	4.75	-2.856 ± 0.638	-0.866 ± 0.514
PRF-fit source offset from KIC position	2.981 ± 0.625	4.77	-2.801 ± 0.638	-1.019 ± 0.514
photometric centroid source offset	2.02 ± 0.84	2.41	2.00 ± 0.84	0.32 ± 0.81

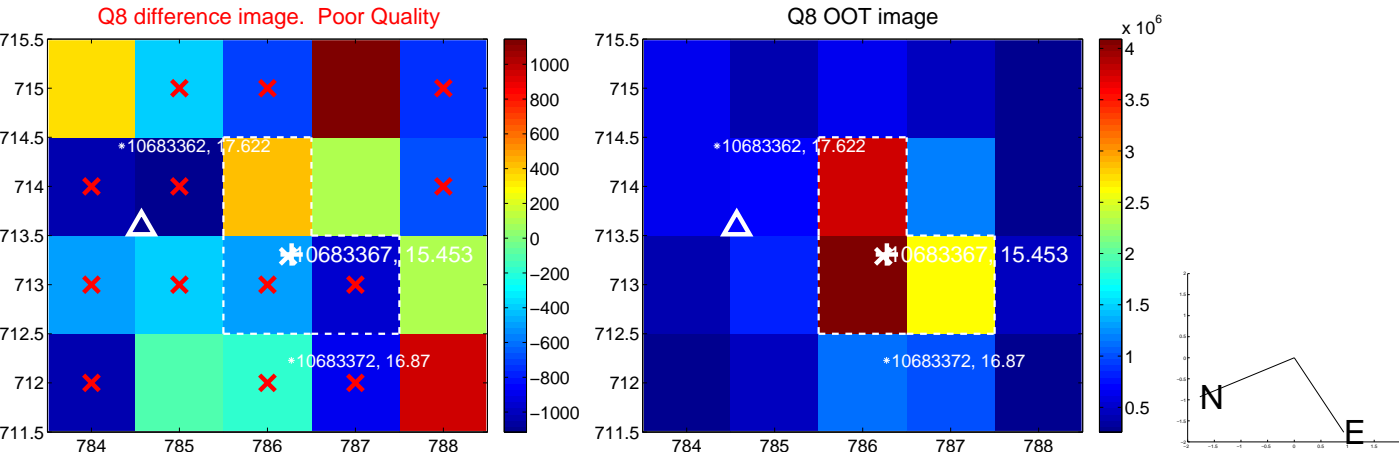
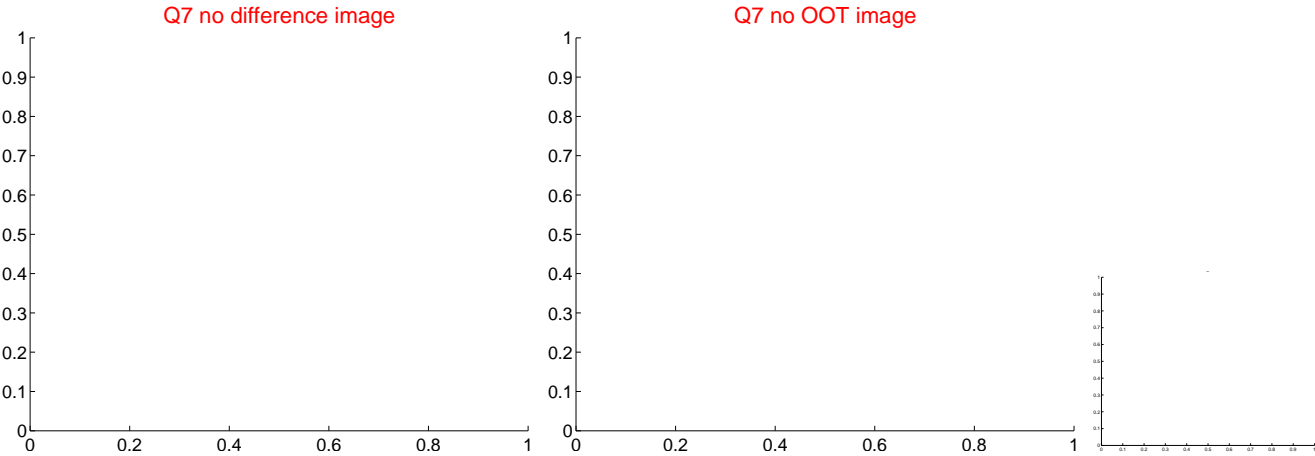
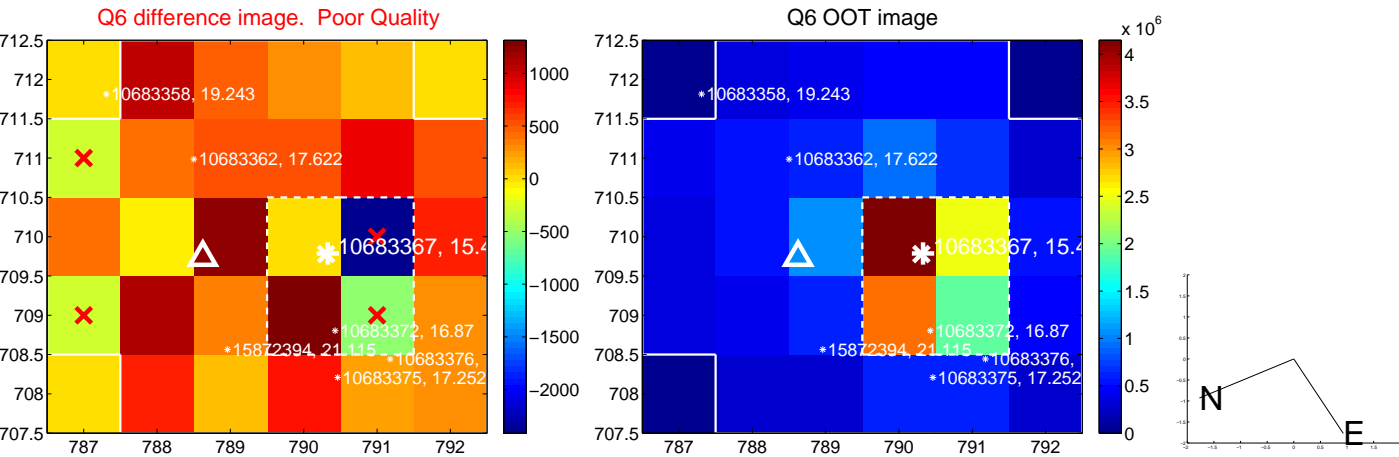
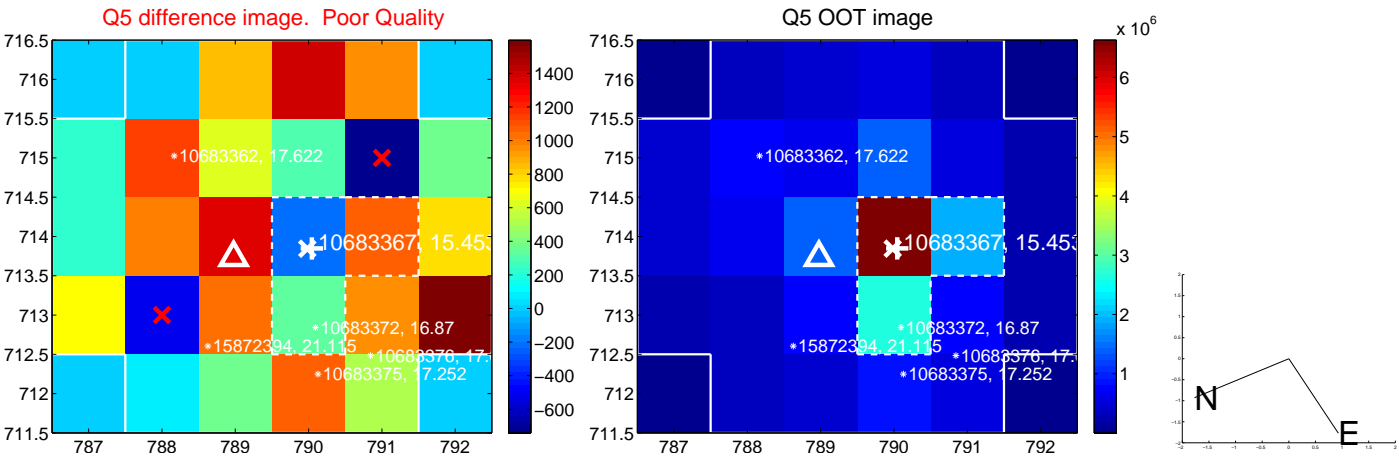


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

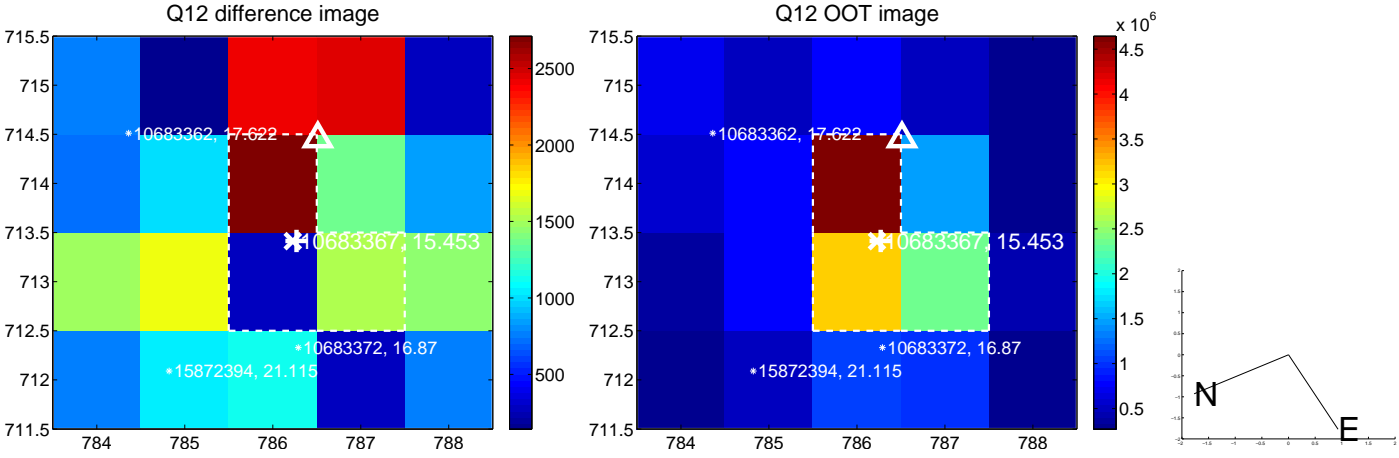
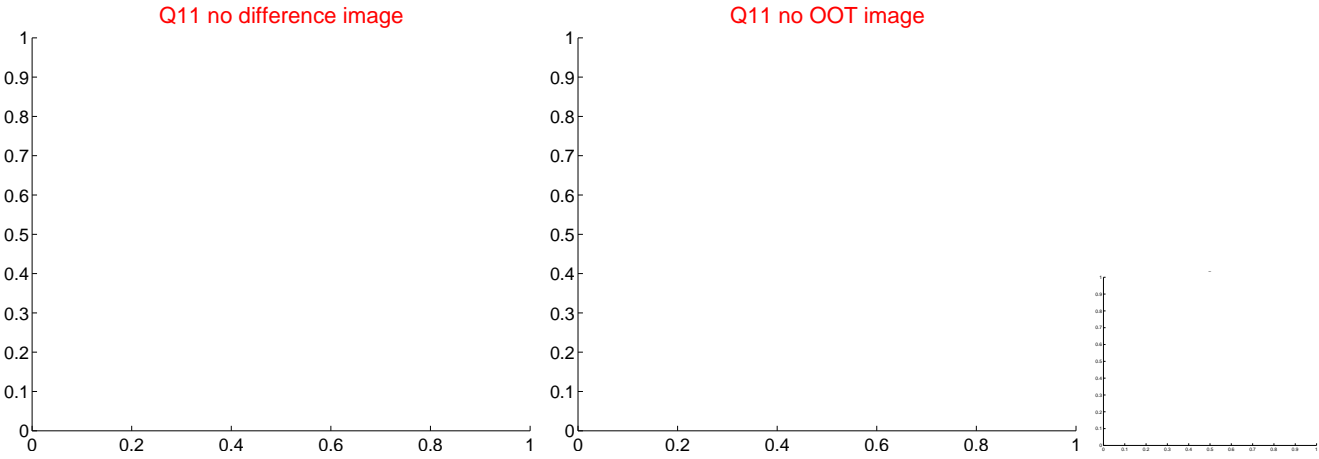
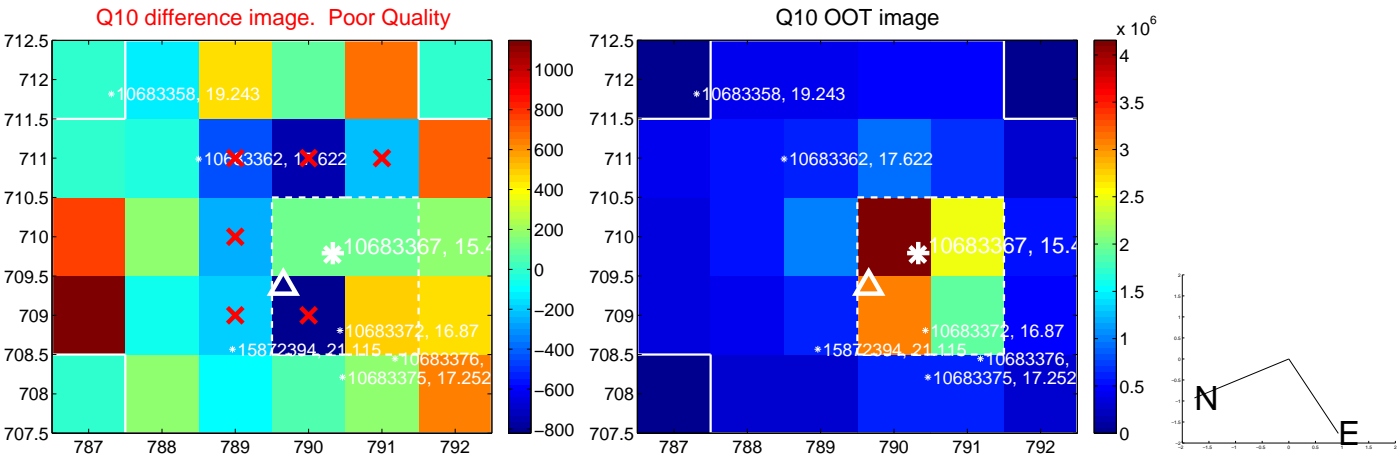
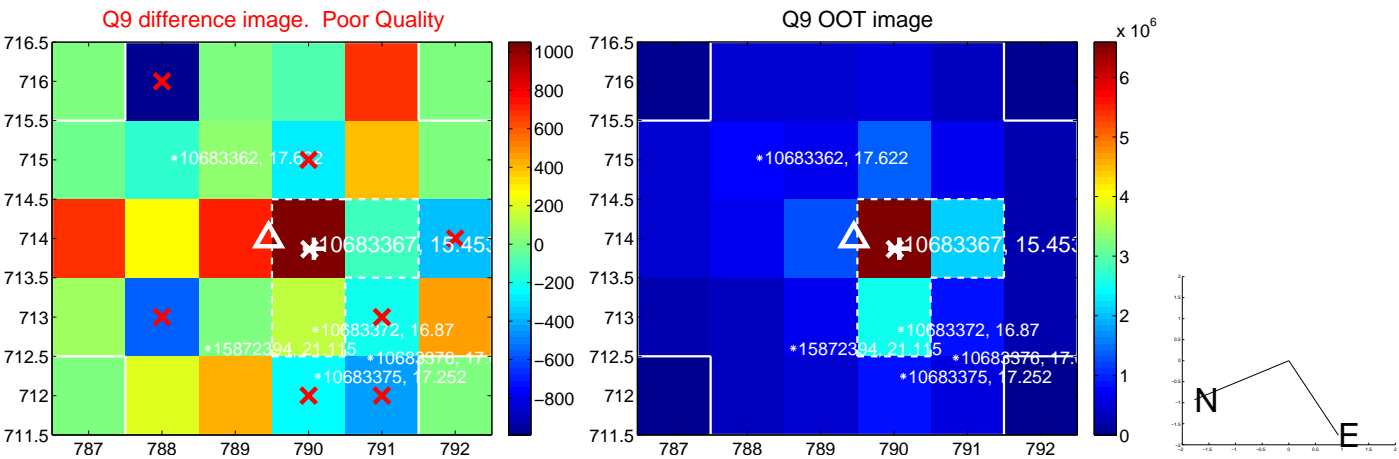
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



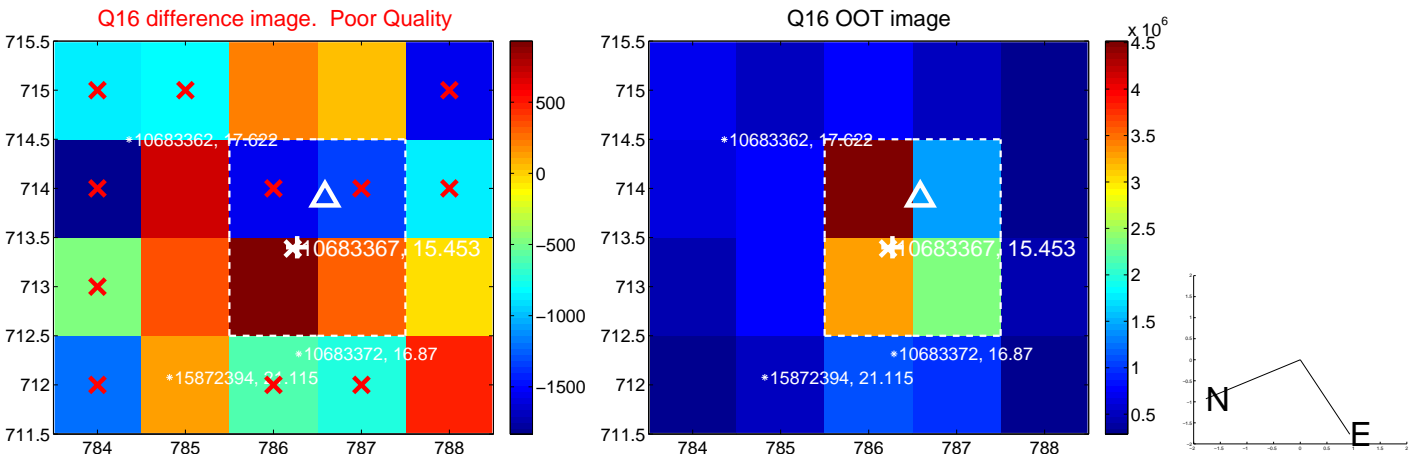
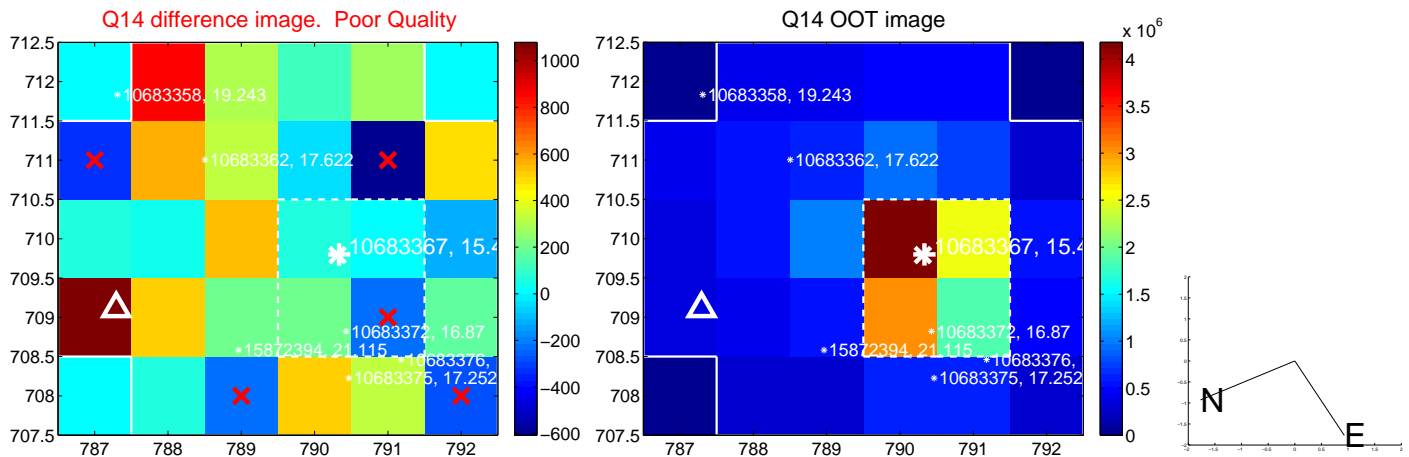
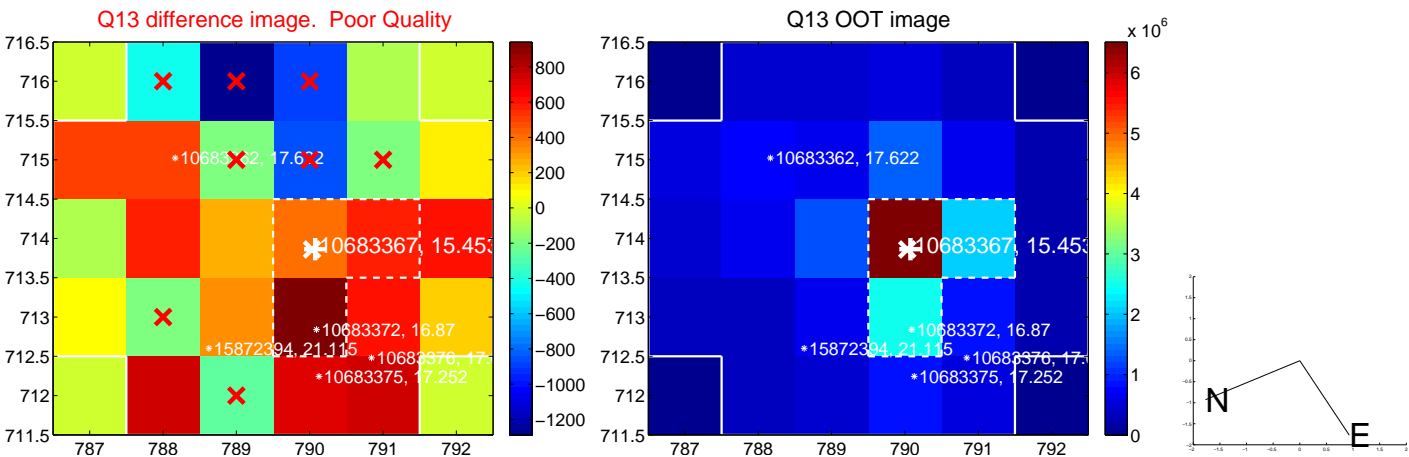
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



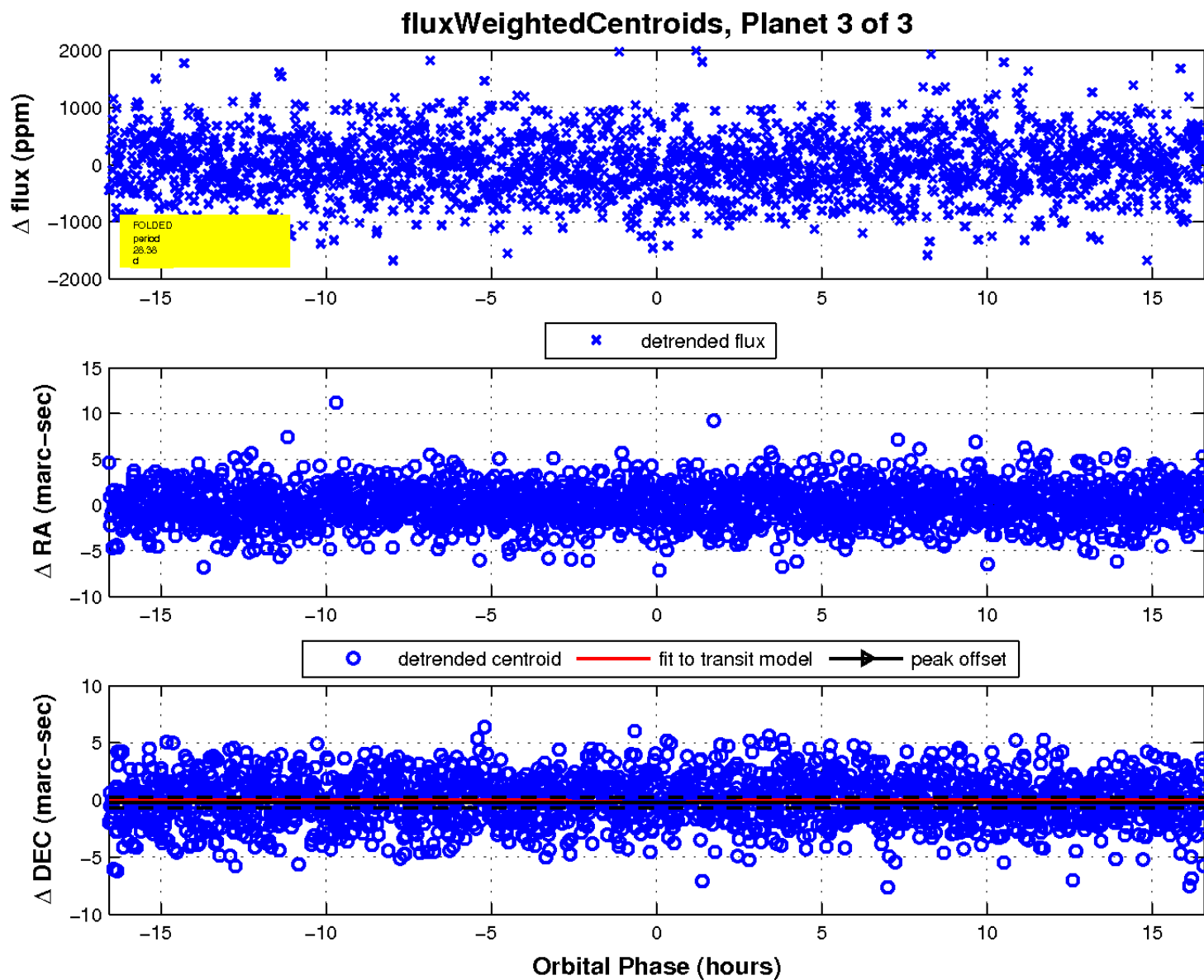
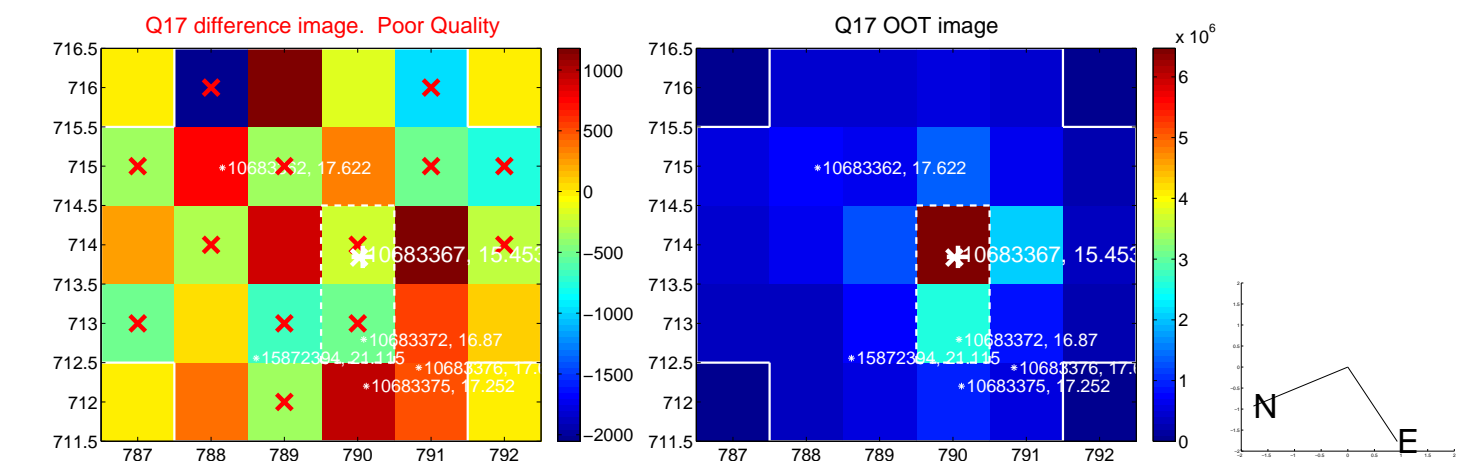
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

